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THE STORY OF MODERN APPLIED ART

THE STORY OF MODERN APPLIED ART

BY
RUDOLPH ROSENTHAL
AND
HELENA L. RATZKA

ILLUSTRATED



HARPER & BROTHERS PUBLISHERS

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Drawings by Jacqueline Heyman, Naomi Breen and Walter E. Hyde

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H-X

Dedicated to the memory of ABBY ALDRICH ROCKEFELLER for her early interest in the Contemporary Fine and Applied Arts

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INTRODUCTION

THE nineteenth century movement toward a new decorative style began as a revival of the arts and crafts about 1850, simultaneously in England and in Central Europe. Confusion in design, imitation materials, machine-made ornament and shoddy workmanship had long been running riot to such an extent that disgust and good sense at last produced corrective action.

It was in England, the richest mass production country of the period, that the outraged aesthetic sensibilities of honest artists and critics first rebelled against the dismal and the smug. Ancient truths uttered by Ruskin and applied by William Morris set it off. Misconceptions concerning design and furnishings, as dusty as the plushy clutter inside Victorian houses, were swept away in Britain and gradually from most of the continent.

The first experiments with new forms and ornament were almost as bad as what had been discarded. Until the unaccustomed freedom from historic design was harnessed to discipline, it was bound to express itself in excesses. But gradually the economic and social trends of the times, as well as the logic of the new-old slogan, "Design for Use," had their steadying effect. Art schools were reorganized, teaching was revolutionized. Under new leadership, the movement that had begun as a protest against the machine evolved on the continent into one deliberately planned to express the machine age. During this second phase of modernism, Austria and Germany rose to leadership. They maintained this position until 1925 when the sensational International Exposition in Paris resulted in transferring first place to France, the

creator of luxurious, rather than middle class design. From 1927 on, the rapidly growing interest of American industry in better design for mass production articles put the United States into the lead in that special field.

Simultaneously with functional applied art, there also developed a revolutionary change in architecture; in fact, the first functionalists in building ended the influence on the continent of Morris's Arts and Crafts movement. Today, the new style modified to express different national temperaments is the only virile one in architecture and decorative art. This is true, too, in the United States and England where there is still great reluctance to part with the seventeenth and eighteenth century styles.

In interior furnishing, three types of homes constitute the greatest difficulties which now confront the modern American designer. The first of these is the good traditional home. This, of course, has the fault that its other rooms are out of tune with the kitchen and bath and also with the times. But, because the traditional interior is often beautiful, the owner helps to perpetuate period design and provides no market for living applied art. The second is the pseudo-traditional home, whose rooms are filled with inherited furniture, some good, some bad. As additions are needed, badly made reproductions are bought to join the conglomeration. Hope here lies in the fact that once the owner sees his house for what it is, he is likely to have everything in it loaded on the truck of the nearest "antique" dealer and to demand a contemporary home. From there on he needs wise guidance. For the most damaging influence against the general acceptance of modern is the third, or the bad modern home. Eccentric "modernistic" furnishings, designed by people whose chief aim is to be different, make its rooms nightmarish interpretations of the contemporary style. The only solution to the entire problem is education. Continual explanation by means of the printed word,

lectures and model rooms is needed to teach the public the basic laws of good form, color and arrangement, and how to express the personality within those laws.

The good contemporary interior may be furnished either with factory-made objects of simple design, or with custom-made pieces from a small workshop whose proprietor has impeccable taste. Fabrics, lamps, rugs, pottery, glassware and silver are carefully chosen, design rather than price being the determining factor. This is the typical home in some countries, notably Sweden, where simplicity is a national tradition. The same honest design for use marked the furnishings of the American colonists; a fact which assures us that modern will quickly be accepted in this country, once the queerness has disappeared and livableness has been sufficiently demonstrated.

As to the home of the future, scientific progress indicates that new materials and techniques will provide us all with beauty and comfort different from and exceeding anything now known. Light, spaciousness, color, cleanliness and heat, will be easier and unbelievably cheaper to obtain in the new atomic age just beginning. As great cities become decentralized and rural districts urbanized, as the need for hard labor decreases, another problem will arise. What will we do with our leisure? Perhaps then the handicrafts will come into their own once more. People will be able, if they wish, to make their furniture, weave their textiles, mold pottery and hammer silver. Those who prefer to buy ready-made furnishings will be able to choose from more well-designed and well-made articles than now. And inevitably, as art education for the student and public improve, the standard of consumer taste will rise.

One thing is certain. Reproductions from past periods will disappear although, as inspirations for original work, the old will live on.

A few words must be said here regarding the scope of this book. The term "applied art" was chosen for the title because industrial design as well as the arts and crafts are included within its generally accepted meaning. As the former emphasizes form and permits little, if any, decoration or ornament, the term "decorative art" would not have covered that important part of the story which deals with design for mass production.

As controversy exists regarding the most appropriate name for the current style of art—that is, whether it should be called "modern" or "contemporary"—it is necessary to explain why the former word appears in the title and predominates in the text. Actually, Gothic, Louis XIV, Georgian and other styles were all contemporary with their day. But the word "modern" designates the style whose designs must not be based on any previous period.

It has been impossible, for lack of space, to relate how and to what extent the modern movement developed everywhere. For that reason three types of countries, so far as the subject of the book is concerned, were selected for a general historical review: (1) those in which modern design began, (2) those which became the great leaders and originators of the new style, and (3) those whose contribution was exceptional for the size of the population. Of the other countries, Poland, Czechoslovakia, Hungary and Switzerland have all done some excellent modern work. Ireland and Portugal continue to produce traditional and peasant art, as does Spain, although the latter has a number of modern buildings. Russia and the Balkan countries have contributed almost no original modern design. The native arts of the Asiatic countries and of Australia, Polynesia and New Zealand remain rich sources of inspiration to the Western designer. Within the past twenty years, the countries of South and Central America have shown a fresh interest in the arts and crafts. The native arts have

been revived and here and there the contemporary style is gaining a foothold.

It has been necessary to confine most of *The Story of Modern Applied Art* to home furnishings which are not of a mechanical nature; that is, furniture, textiles, china, glassware and pottery. The developments in modern jewelry design, bookmaking and typography which took place after Morris could only be touched upon. Each of these subjects, indeed, provides sufficient material for a separate volume. Package design and the other forms of advertising art could also be mentioned only as a part of the over-all view.

The illustrations were chosen to provide an historical record rather than only good designs. In some instances it was impossible to obtain a good photograph of an important design, but the best that was available from every country was used in order to show the characteristics of the style as it developed. Unfortunately, the necessary limitation to black and white made it compulsory to exclude many beautiful fabrics, rugs, carpets and wallpapers, because only full color can do them justice. Finally, the magnificent work of the industrial designers, which has changed the appearance of everything we use, could be represented only by such objects as come within the scope of the book.

It was decided to close *The Story of Modern Applied Art* with the war years. The political events from about 1938 on provided a natural conclusion for the chapters dealing with the Central European and Scandinavian countries; and, indeed, the period which was ending then saw the contemporary style firmly established as to principles and manner of interpretation throughout the world. For that reason, postwar activities, even of special promise for the future, have been but briefly mentioned. The chapter on the United States closes about 1940.

Only a few important designers and architects in each

country could be mentioned because of the limited space. Of necessity, the German and Austrian names have been the most drastically reduced, for Vienna had a remarkable number of outstanding designers, while at least half a dozen German cities were important centers of applied art until just prior to the war. Similarly, the increase in good designers in American cities in the east, on the Pacific coast and in the middle west since 1940 has been so rapid that only a few besides the pioneers could be mentioned. At first, it was planned to publish the more noted artists at the end of each chapter, because in the tragic changes that have occurred the names and work of some of them will be lost. This had to be abandoned. A few lists would have been very long. Moreover, designers' names could not be set under distinct clarifying headings. Some architects are designers as well as craftsmen, while others are not; some interior decorators design furniture, others do not; some industrial designers also create interiors, while others work only for mass production. These complications and the limits of space made a helpful and comprehensive listing impossible.

In conclusion, we wish to express our deep appreciation of the kindness of the artists, editors and educators in the United States and in Europe, who have given their time, valuable information and many designs to make The Story of Modern Applied Art useful and complete. Much of the foreign material was difficult to obtain owing to postwar conditions. The loss of books and photographs, due to bombings and social and political upheavals, caused many delays. The final effect, however, was negligible, owing to the extraordinarily kind co-operation of people who had taken part, several from 1900 on, in the development of the modern movement. Deserving of special thanks are Professor Josef Frank, formerly of Vienna and now in Sweden; Professor Ernst Lichtblau, formerly of

Vienna and now teaching in the United States; Gio Ponti, editor of Domus, Milan, and Albert Levi, publisher of Art et décoration, Paris. Pierre Chareau, now a designer in New York, was helpful in checking important details in the chapter on France. Muriel Harris of London, James Hogan, director of James Powell & Son, London, and Gordon Russell, director of the Council of Industrial Design, London, contributed valuable information concerning the "after Morris" period in England. Jean Heyman of Brussels secured difficultto-obtain data about Belgium and France, and Mrs. Walter von Nessen's knowledge of the early Swedish promotion of modern, as well as her experiences as an American designer, provided some original material for two chapters. For the United States story, Richard F. Bach, director of the Department of Education, Metropolitan Museum of Art, not only made available the printed records of the museum's work to improve American industrial design, but gave several interviews. Ely J. Kahn, Buk and Nura Ulreich, Grace Alexandra Young, Professor Emmy Zweybrück and Katherine Speyer all contributed important facts concerning modern architecture, design, art instruction and history. Others who gave their wholehearted co-operation were the Newark Museum (New Jersey), Syracuse Museum (New York) and The Museum of Modern Art (New York). To Allen H. Eaton of the Russell Sage Foundation we owe special appreciation for his assistance in connection with the revival of the handicrafts in the Southern Highlands of the United States. Rena Rosenthal's firsthand experience with modern design development, throughout Europe and the United States, simplified the selection of representative illustrations from all countries. Finally, Arthur L. Ratzka's translations made it possible to use the large amount of source material available only in the Italian and Scandinavian languages. It should perhaps be added that most

of the European historical material was obtained either through personal interviews or from foreign publications issued at the time the events occurred.

RUDOLPH ROSENTHAL HELENA L. RATZKA

THE STORY OF MODERN APPLIED ART



PART I

REBELLION IN ENGLAND

Applied Art can be credited to any one person or country, then it was John Ruskin who began it and the place was England more than a century ago. It was in 1843 that Ruskin, then in his early twenties, published the first volume of his Modern Painters, which had originally been intended as a defense of the unorthodox sunsets of Turner.

In this book, Ruskin analyzed the principles of art, recalling to the artist that he must go to Nature for inspiration and study if he would produce honest work. Since truth is simple, he said, art should be simple also. Being a passionate admirer of early Gothic, Ruskin fought for a revival of the crafts as they had been practiced in the Middle Ages, when every artist was a craftsman and the simplest household object had been worthy of his serious effort. Art, he reminded people, is not a superficial occupation and pleasure for the few, but an essential in every man's life; only artistic activity and the enjoyment of the beautiful give dignity to human existence.

Architects, Ruskin said in his stirring prose, must be more than builders; they must also be sculptors, otherwise their buildings cannot have true unity. With contempt, he pointed to the artistic decadence of the nineteenth century which permitted the continued copying of the great works of the past, thus making impossible a sincere expression of the modern era.

Ruskin's teachings took root slowly, but here and there

1

young artists who felt themselves frustrated under existing academy methods adopted him as their master. For the most part, they were obscure painters, architects and industrial designers who believed heretically that the only healthy development in an age of overdecoration must be in the direction of sincerity and simplicity.

Ever since 1800, there had been discontented mutterings in England, France, Germany and Austria against the many "styles" in architecture and furniture which periodically covered Europe like a rash. Beginning with Empire, a style was either an adaptation or a combination of Greek, Gothic, Renaissance, Baroque and Rococo, until finally the cycle closed when Empire itself was adapted in Austria to become the Biedermeyer style. Gothic had long been violated to fit the buildings of trade; Greek temple façades appeared on house fronts and banks; copies of Roman baths were railroad stations; Renaissance fabric designs were atrociously altered to cover nineteenth century walls and furniture. While the "styles" were sometimes charming, it was equally true that none of them arose spontaneously out of the needs of contemporary civilization.

The artistic decadence of the time was inevitable. Numerous new museums had been established by ambitious cities and they naturally directed the thoughts of students and the public back to the past. Most art schools stressed the copying of old masters instead of urging the study of their work as a source of fresh inspiration. As a result, skill and realism increased, and a great deal of ornament appeared on every kind of surface, but hardly any originality came of it. To a public accustomed to landscapes in which even sunshine was painted in tones of gray, Turner's brilliant colors and rarely seen skies could be only an affront. It was at this point that Ruskin commanded, "Go to Nature in all singleness of heart and walk with her laboriously and trustingly, having no other thought

but how best to penetrate her meaning, rejecting nothing, neglecting nothing, and scorning nothing."

The period has been generally characterized as that of "the industrial revolution." This is misleading because the tempo of industrialization had been steadily increasing for longer than a century. As machines multiplied, the cultured classes, not only in England but on the continent, watched them, with distaste and fear, pushing their greedy way into first place in the world. The machine had created a new middle class whose interest lay not in culture, but in profits. In England industrialism had spawned hideous new towns and transformed picturesque old villages into dreary wastes where human misery was hidden only by factory smoke. Cheap mass production did, indeed, satisfy the wants of the uneducated masses, but most of the crafts had been killed. What had happened to them was made shockingly clear at the Great Exhibition of 1851 in London where, for the first time, products from the whole world were shown together. Everyone saw then that most manufactured articles were a jumble of styles, painted and printed in violation of surfaces and materials and with a disregard for honest workmanship.

In this confusion and bad taste, the historic styles of France stood out from everything else for their purity and superb execution. To raise the quality of English work, Prince Albert then commissioned Gottfried Semper, the celebrated German architect (1803-1879), to formulate a plan of education in applied art. Semper's program included the reunion of the fine arts with the crafts and the joining of both under architecture. The basic principles regarding form and ornament which he laid down affected arts-and-crafts teaching all over Europe. His recommendation for the establishment of a museum where the objects would be ordered according to materials and techniques was realized in the South Kensington Museum, the first of its kind, in 1852.

For many years sculptors and painters had held themselves aloof from the crafts. A feeling of superiority had developed among them, partly because Coleridge, Keats, Schiller and other poets had elevated the artist to the position of high priest of beauty. But when painting and sculpture were freed from the restrictions of architecture, talent and taste were gone from the crafts. Inevitably, too, with the growth of the "art for art's sake" idea, the number of easel pictures, bronzes and marbles remaining unsold multiplied. The time was now ripe for creative minds to return to the design and execution of useful objects.

In the confusion of the day, with philosophical and social theories also unsettling thought, the artist probably suffered the most. Searching for a pattern of life, he found it in two faiths, a new one and the most ancient of all. Through articles and lectures, as well as through his paintings, he propagandized for a romantic brand of socialism, convinced that it would bring about the brotherhood of man and the freedom of the individual. And he also earnestly took part in the current religious revival.

Ruskin hated the machine. He hated it because it had destroyed beauty and the joy that comes of fashioning something with one's hands. He despised it because it reduced men's lives to sordid drudgery. He abominated its works, and especially those highly publicized new wonders of glass and iron such as railroad stations and London's Crystal Palace. Consistently, he had his own books made in the country in a garden-enclosed printing press, in accordance with his ideals of workmanship and working conditions. He even shipped the books by mail coach instead of by train to avoid their pollution through soot and a machine-run conveyance. This procedure made his books costly. Nevertheless, their sales ran into hundreds of thousands of copies.

Late in life, Ruskin resigned himself to the machine but he

never made his peace with it. He believed to the last what he once told an audience of industrial artists: "To men surrounded by the depressing and monotonous circumstances of English manufacturing life, depend upon it, design is impossible." In that lecture, incidentally, Ruskin also gave his hearers ethical advice which some of today's designers and producers could follow with benefit to applied art and to their business reputations. "... if in jealous rivalry with neighboring states or with other producers," he said, "you try to attract attention by singularities, novelties, and gaudiness—to make every design an advertisement, and pilfer every idea of a successful neighbor's, that you may insidiously imitate it, or pompously eclipse—no good design will ever be possible to you, or conceived by you."

Ruskin died in 1900 at the age of eighty-one, unhappily outliving his greatness, as a young generation was already regarding him as outmoded. But he had sowed the seed of his faith well. Integrity in art improved throughout Europe. The greatest proof of his stature, however, was William Morris, his one perfect apostle who, by putting into practice the master's teaching, blazed a trail for the crafts which restored them to honor in every European country.

The revolt set in motion by Ruskin was hardly noticeable at first. The few painters who dared depart from prevailing methods were either soundly trounced by the critics or utterly ignored. Among the former was the embittered Ford Maddox Brown, whose love of light and color moved Dante Gabriel Rossetti to ask him to be his teacher. It is said that Brown, accustomed to nothing but abuse from the public, met Rossetti at the door with a cane, prepared to thrash him if his call turned out to be a practical joke.

But on an evening in 1848, so a story has it, seven talented young men, among them Rossetti, met for shop talk at the studio of John Everett Millais, and finished up by founding

the Pre-Raphaelite Brotherhood. On a table before them lay reproductions of Benozzo Gozzoli's frescoes in the Campo Santo at Pisa. In these they saw the fulfillment of their artistic ideal; namely, sincerity achieved by the tireless study of nature, combined with decorativeness in which everything without meaning was excluded. Gozzoli, Filippo Lippi and Botticelli became the lasting inspirations of the group. The immediate effect of such influence was that every man's hand was against the Pre-Raphaelites and their eccentricities. They painted outdoors, for instance, instead of composing land-scapes in the studio; they painted an entire model instead of using the head of one beauty and the torso of another; and they had the audacity to bring light and color into their pictures, as they did later on into women's dress fabrics and English rooms. Believing with Ruskin that no object is unworthy of the artist's attention, they also turned to the crafts. Rossetti designed frames for his pictures, and covers and linings for the bindings of his poems. And their collaboration made William Morris's arts and crafts revival the sensationally successful undertaking it became.

The Pre-Raphaelites were venomously attacked with denunciation and ridicule. The subjects of their religious paintings were declared sacrilegious, while the decorative quality was put down as contemptible affectation. Charles Dickens was among their many enemies. One critic pronounced: "We can extend no toleration to a mere senile imitation of the cramped style, false perspective, and crude colors of remote antiquity... that morbid infatuation to mere eccentricity deserves no quarter at the hands of the public." Most of the group were talented writers as well as painters; in fact, to the Italian Rossetti, painting was chiefly a medium for expressing poetry and mysticism. Their literary idols were Keats and Dante, and they were sincerely religious. Gifted and sensitive, they suffered acutely from the abuse.

One day a letter appeared in *The Times*, signed "The Author of *Modern Painters*." No member of the Pre-Raphaelites knew Ruskin personally, although all of them had read his books. Holman Hunt especially was his enthusiastic admirer. The Academy exhibition was on, and not a single Pre-Raphaelite canvas had been sold; in fact, there was danger that the pictures would be removed from the walls. Ruskin's defending letter, and another which followed it, started the change in the public attitude which eventually led to the group's international fame. The nucleus of seven was dissolved by 1853, Rossetti continuing to paint mystical subjects while several of the others became more realistic. But Pre-Raphaelitism attracted new followers for years, the movement lasting almost to the close of the century. Among the men who achieved the widest recognition were Rossetti, Millais and Holman Hunt. Edward Burne-Jones, a young beginner when their day was already fading, became the most noted of them all.

Long since outmoded, the Pre-Raphaelites nevertheless made a lasting contribution to modern art. They brought to it color, originality, simplification and sincerity.

William Morris succeeded in doing for the arts and crafts what the Pre-Raphaelites had done for painting. In Art and the Beauty of the Earth, he says, "Time was when everybody that made anything, made a work of art besides a useful piece of goods, and it gave them pleasure to make it. . . . And, sirs, if there is anything in the business of my life worth doing . . . it is the hope that I may help to bring about the day when we shall be able to say, so it was once, so it is now."

These words, having the true Ruskin ring, express the Morris doctrine. His career was a virulent thirty-year protest against the furnishings, hideous machine production and copied ornament of the Victorian age. From the beginning of his studies, he had seen the dishonesty in contemporary art

in every shop window. And, as he steeped himself in the civilization and culture of the Middle Ages, he reached the conclusion that a revival of the medieval spirit, with its freedom, its respect for tools and materials and its honesty, would bring about a modern Renaissance. More, it would restore to man the dignity he achieves through creating a piece of good work with his hands. Unfortunately, Morris could not recognize the machine as the fundamental fact of his time. Precisely because he tried to impose Gothic handicrafts on a machine civilization, his revival was doomed to fail. As G. K. Chesterton put it in 1912, "Morris's disadvantage was that he was not honestly a child of the nineteenth century; he could not understand its fascination and consequently he could not really develop." Yet his influence was enormous.

Morris was born in 1843, the son of well-to-do parents who could indulge him in whatever studies or experiments interested him. He went to Oxford, considered becoming a painter, but approached art through architecture as a pupil of George Edmund Street. His fascination for Gothic led him to the crafts and, when in 1857 he was unable to find any suitable furniture for his first studio, he decided to make it. In 1861 he formed the firm of Morris, Marshall and Faulkner, succeeded in 1865 by the Morris Company. Into this firm he drew some of the most famous artists in England, among them Philip Webb, his fellow-student in architecture; Burne-Jones, his childhood friend; Ford Maddox Brown; Dante Gabriel Rossetti; Walter Crane; and a group of already rare craftsmen in glass, printing and wood engraving. Under Morris's leadership these men changed the appearance of England's overfurnished and overornamented houses. Simplicity, sincerity and logical design were the characteristics of the movement. Decoration consisted of conventionalized fruits, birds. animals and austere figures with flowing robes. The peacock

was frequently used, and its blues, greens and gold were a favorite color scheme. Some of Morris's designs were based on Germanic and Scandinavian mythology. Many of his carpets were inspired by Oriental patterns.

Under this influence, mid-Victorian gilt, marble and knick-knacks were swept into the dust bin. Walter Crane, describing what happened in fashionable London homes, says:

Simply framed rush-bottomed chairs replaced the wavy backed stuffed chairs, bordered eastern and fringed Axminster carpets on plain or stained boards, India matting, took the place of stuffy planned carpets,—rich or simple flat patterns expressed the proportions of the room,—instead of trying to hide under bunches of sketchy roses and stripes. . . . Slender black wood or light brass curtain rods, and curtain rods and curtains to match the coverings, or carry out the color of the room, displaced the heavy mahogany and ormulu battering rams, with their fringed and festooned upholstery. . . . Plain white or green paint for interior woodwork drove graining and marbling to the public house, blue and white Nankin-Delft routed Dresden and Sèvres from the cabinet, plain oaken boards and trestles were preferred before the heavy mahogany telescopic British dining-table of the mid-nine-teenth century. . . .

Morris's influence did not end there. Architecture was approached from the standpoint of use and was being freed from classicism. Women's dresses became more colorful, as flower patterns appeared on the silks and foulards shown in Bond Street shops. All kinds of people who did not understand the ethical principles behind the revival took up simplicity as a fad and vulgarized it as the "aesthetic movement" and "the simple life."

Morris said truthfully that he lived in order to work, not to work in order to live. His physical and mental energy seemed inexhaustible. Before he was twenty-two, he had exhibited carvings in stone and wood, clay modeling and illuminating. When dyes began to interest him, he worked at the vat and made studies of the comparative durability and color tones

of vegetable and aniline dyes. He learned how to weave rugs, carpets, textiles, and he revived Arras tapestry. Inspired by the beauty of Gothic windows, Morris established a glass shop and engaged Burne-Jones to paint his austere figures, while he himself composed the stylized floral borders and backgrounds for which he had a special gift. Inevitably he became interested in illuminated manuscripts, and wrote an illuminated text of the *Rubaiyat* of Omar Khayyám. Printing was Morris's last interest. He first studied papermaking and, in his Kelmscott Press, produced a handmade, pure linen rag paper of such high quality that it was one of the finest manufactured in Europe. He designed three type faces for his press; Golden, Troy and Chaucer, with ornaments and initials by Burne-Jones and Walter Crane.

In addition, Morris wrote some excellent prose and poetry; he translated the *Odyssey*, the *Iliad* and several Norse sagas. Much of his spare time was given to the promotion of socialism, although, when a riot resulted in London because of his speeches, he retired to his studio and his art. In his few moments of recreation he read Rossetti, Tennyson and Mark Twain.

William Morris died in 1896, his life probably shortened by the exhaustion of vital energies too recklessly consumed. On the occasion of his funeral, the London *Graphic* wrote: "He warred with brilliant success against the tyranny of ugliness." It was a perfect epitaph.

One of the most important results of Morris's efforts was the establishment of craft schools and societies throughout England. The best known among these was the Arts and Crafts Exhibition Society, of which Morris was the first president, and which held its first show in 1888. This was the organization which so greatly influenced the continent through its exhibitions. There was also the Century Guild, whose special interest was printing; the Home Arts and In-

dustries Association, which started village classes in handicrafts all over the country; the Royal School of Art Needlework; the School of Art Wood Carving; and numerous others. Discouragingly, none of the efforts made to interest workmen in the crafts were successful. The machine offered them work without much training.

There was another name famous in the arts and crafts, one associated with the Pre-Raphaelites, but not of them. This was Walter Crane, foremost book illustrator of his day, father of the modern picture book for children and one of the first Morris disciples who worked with commercial manufacturers. His work was greatly admired in the United States, where he lectured and held several exhibitions.

Crane (born 1845) arrived in London in his early teens and came under the Ruskin influence in 1857 through reading *Modern Painters*. He wanted to become an animal painter. One of his favorite stories about his boyhood concerned a sketch he made of a "shaggy and wall-eyed" milkman's pony. The man liked the sketch so well that he offered the artist a glass of milk for it. Crane accepted happily because the bargain included access to the barnyard that was full of cows, chicken and dogs.

In his twenties, Crane began to illustrate children's books. Since good work was rare in this field, his bright pictures, naïvely and understandingly done, became popular immediately. Hundreds of thousands of the inexpensive editions of Cinderella, Grimm's Fairy Tales, Baby's Own Aesop and others were sold. Crane knew all of the processes of bookmaking, paper manufacture and the problems of reproduction. He painted illustrations, jackets and designed borders. He also wrote children's stories. He prepared advertising and commercial letterheads, wrote articles on craft techniques and was a teacher in the craft school of the South Kensington Museum.

Soon Crane was a designer of draperies, wallpapers, hangings, embroidery and stained glass windows for the Morris Company. His compositions consisted of stylized flowers, animals and birds. Like most contemporary designers, he made frequent use of the peacock motif. Japanese art was a strong influence throughout Europe by this time in furniture, painting and design generally, and the work of Hokusai was a European craze. Crane's work showed this influence strongly, yet it was wholly English in conception. One of his famous wallpapers was "Margrite," which became a complete wall decoration by the addition of a dado of lilies and a frieze of symbolic figures. A carpet had a design of daffodils and bluebells with a border of iris. The theme of a blue damask tablecloth was the five senses. Crane created fireplace tiles for Liberty's of London and fabric designs for machine weaving. Of the latter, his first was for a woolen curtain "heightened with silk." A high spot during one of his journeys to America was his discovery of this hanging in a sleeping car of the Southern Pacific Railroad.

Gesso was one of Crane's special interests. He had begun to model as a boy in a suburban brick yard, but it was around 1875 that he made his first models for a frieze, raised and gilded in the manner of the early Florentine school. One of his many painted friezes was for the Women's Christian Temperance Building in Chicago. Another, for a Newport residence, illustrated Longfellow's "Skeleton in Armor." As he was an ardent socialist, a follower of Mill and George Bernard Shaw, he painted several friezes whose subjects dealt with labor, among them Justice and The Commonweal.

Walter Crane died in 1915. The words of an admiring Austrian critic, at the turn of the century, had well summed up his character and work in these words: "He is a strong artist soul—not a revolutionary, but he follows the path of the new."

Among the members of the Arts and Crafts Society who influenced the continent a good deal was Harry Powell, director of the Whitefriars Glass Works. This firm was established in 1843, and definitely joined in the modern movement with Powell's appointment about 1890. Until then the heavy Victorian glass, cut in diamond and prism designs, was almost the only kind that could be bought. Powell studied the famous old Roman, German and Venetian methods of glassmaking, and was the first to design new forms from the standpoint of the material and without ornament. His exhibited work started an entirely new trend in glassmaking in Vienna, Paris and Germany.

The potter, De Morgan, had a definite influence on modern continental stoneware. He was noted for his extraordinary luster glazes. And Philip Webb, the architect of Morris's house, was more noted for the beauty of his modern furniture than for his buildings.

The young artists on the continent had revered Morris as a deliverer. But by 1902, at the first international exhibition of modern decorative art, in Turin, Italy, it was obvious that the designers of France, Austria and Germany were beginning to strike out on their own. A number of new magazines had been launched in those countries, which showed what was taking place. Reviews of the English exhibit at Turin were already impatient with conservative England for clinging to Chippendale and Sheraton on the one hand, and the resuscitated Gothic on the other.

"Everything one sees here," said Deutsche Kunst und Dekoration, "everything of Morris, Walter Crane, Webb... all these look backward... Where are the followers?" In 1903, the English Arts and Crafts Exhibition Society held a great show at the New Gallery of London. Crane, its second president, had forty-seven pieces of work on display. But the French Art et décoration summed up the event in these

words: "One no longer looks very much to England. Austria, Germany and Holland are doing independent work." The Viennese Kunst und Kunsthandwerk, after devoting pages of praise to individual pieces in the exhibition, ended regretfully: "We all know that the whole movement of modern applied art has come out from England . . . and that the modern Renaissance is striking root. . . . But precisely from this point of view the present Art and Crafts Exhibition is a bitter disappointment. It shows a tremendous broadening of activity, revival in many a long neglected field and above all a steadily growing love for the beautiful, for precise and good workmanship. But so far as style is concerned, all unity is missing. . . ."

It was in the field of architecture that England made the greatest strides in originality. A number of young architects succeeded in combining the revived Gothic influence with modern needs and inventions and creating something new and good. The country's leadership is attributable to several factors. City dwellers on the continent lived on one floor of a building, while in England a family had a house, and many people commuted between the city and a suburban home. In London, appalling slum conditions presented an important opportunity when religious and philanthropic organizations undertook to erect workers' settlements. The garden suburb was another development, while the so-called city "mansions," forerunners of the modern apartment house, were making their first appearance for well-to-do families in town. In these, a tenant rented part of a floor and the building upkeep was the business of the owner.

Among the most important of the modern architects were C. R. Ashbee, M. H. Baillie-Scott, C. J. Voysey and Charles Rennie Mackintosh. The latter's wife was an outstanding decorative painter.

Charles R. Ashbee, born in 1863, was a gifted craftsman

who had a streak of the practical. Originally more medieval in his approach to the crafts than Morris, he founded his Guild and School of Handicraft in 1888, with a few workers and a shop in an old house in London. There, under "pleasureable conditions," he made metalwork, silver, furniture, jewelry and other articles. It was good work and of necessity expensive in comparison with machine production. When, in 1902, a patron turned over to him an old brewery in the country, Ashbee moved his Guild out there. Upon Morris's death he took over the Kelmscott Press. Later on he founded a publishing house, the Essex Press, and designed such excellent bookbindings that, by command of the king, he printed, bound and decorated the Coronation Bible. Ashbee's struggle against the machine, however, was a losing one, and so he resolved to go along with the times. "We do not reject the machine," he said, "we welcome it. But we desire to see it mastered." Ultimately, he went a good deal further than that. "Modern civilization rests on machinery," he wrote, "and no system for the endowment, or encouragement, of the teaching of art can be sound that does not recognize this."

Among the best known of Ashbee's houses are some on the Chelsea Embankment which were an architectural sensation when they were built. In these he succeeded in subduing the classical influence and creating practical original designs that were in lasting good taste.

C. F. A. Voysey was born in 1857. Like Morris, he believed in discarding useless ornament. Simple proportions, original contours and strong treatment of surfaces characterized his buildings. He also gained an international reputation for his charming and playfully designed wallpapers and his silk and velvet fabrics printed with delicately drawn conventionalized plant and bird patterns. Voysey was less bound to the medieval than was Morris. Rebellious against tradition in his youth, he later developed an appealing, original style in

which he utilized older periods. For many years he was the most imitated architect in England, and an inspiration on the continent.

M. H. Baillie-Scott, born in 1865 in Scotland, was a member of the renowned "Glasgow School." In the nineties Glasgow was the center of a separate art movement, but an outgrowth of the Morris revival. Churches, schools, houses, restaurants, posters, accessories of every kind, came under its unique influence. Even the designs and colors of women's dresses were made and chosen to be worn in the new interiors. Baillie-Scott was one of the leaders of this group. He was a functionalist by instinct, though as one critic said, "not a fanatic of the useful of the American type." Because he approached all design so firmly from the architectural standpoint he frequently sacrificed charm, especially in furniture, for the sake of unqualified structural lines. Although a modernist, he still belonged partly to the older order in his belief that beauty ends where the machine begins.

Baillie-Scott's houses were mostly designed for country living. They were low, had unsymmetrical façades, friendly high-gabled rooms, beamed ceilings, and the rooms were decorated with friezes of conventionalized flowers and fruits. His fireplaces were ornamented with glazed tile and hammered copper. There were nooks and corners, planned for group activities. The central idea was always to create a functional interior, the façade developing out of that.

One of Baillie-Scott's commissions with a far-reaching effect was for two rooms in the palace of the Duke of Hesse in Darmstadt. This work popularized him enormously in Germany, after the appearance of an illustrated article in *Innendekoration*. The woodwork in the interiors was painted in alternate colors of blue, orange, yellow, green and white. There were friezes of water lilies and leaf motifs, and stained glass windows. The severely simple furniture was squarish and clumsy,

occasionally relieved by a curved line or delicate inlay which seemed inconsistent. Still in evidence was the Gothic influence, and ceilings, walls and furnishings were designed in a carefully planned harmony. That Baillie-Scott became one of central Europe's highly fashionable artists is evidenced by a line in a prose poem by J. A. Lux, the noted Austrian author and painter: "How well that Baillie-Scott chair suits you, Madelaine."

As happens so often to prophets, Charles Rennie Mackintosh received far less homage in his native country than he did abroad. While critics in Scotland were condemning his work as "delirious phantasies," he was recognized in the art circles of Germany and Austria as a brilliant architect, designer and painter, and he received a number of important commissions there.

Mackintosh was born in 1868. He began to study art at the age of sixteen and, like Baillie-Scott, belonged to the Glasgow group. Probably his most lasting achievement in that city is the Glasgow School of Art. Now hedged in among ugly buildings, it is still a magnificent example of modern, independent design.

Among the local patrons of the young architect was Miss Cranston, proprietress of a series of tea houses. For her he designed four establishments between the years 1897 and 1911. Miss Cranston's tea houses had little or no resemblance to the general run of tearooms with which Americans are familiar today. As illustrated in *The International Studio* in 1896, Mackintosh's designs for the Argyle establishment included a spacious luncheon room, billiard room and other interiors furnished with authentic elegance. Severely straight lines predominated, yet finely balanced proportions gave the whole a dignified and restful harmony. A gracious interior was the dining room in the Buchanan Street tea house, where a frieze of tall, slender figures, reminiscent of the work of

Klimt, the noted Viennese, harmonized subtly with slender, high-backed chairs. Oak, leaded glass, tiles, copper and brass were the materials generally used by Mackintosh for his sparingly applied ornament.

In 1901, an Austrian group invited Mackintosh and his wife to hold an exhibition in Vienna's Sezessions Haus, a new headquarters built by young rebels who had discarded academic methods. Everything exhibited was sold. The Mackintoshes also received a commission for a music room with twelve painted panels. The Grand Duke Serge of Russia admired their work so much that he requested them to exhibit in Moscow. In 1902, Mackintosh was invited to design the Scots' Pavilion for the exhibition at Turin. During the same year, Zeitschrift für Innendekoration held a competition for "the house of an art lover," and Mackintosh's drawings for it were published with a laudatory introduction by Hermann Muthesius, foremost critic in the modern German art world.

Another remarkable artist, though less of a genius, was W. J. Neatby, a successful architect, engineer, sculptor, painter and designer, who had never had any art school instruction. Neatby began his career as a fifteen-year-old boy in an architect's office and, after six years' employment there in various capacities, was ready to work independently as an architect and engineer. When he was twenty-three, he entered the pottery works of Leeds as designer and painter, and later became director of the architectural and mural decoration departments for Doulton. Both these positions prepared him for the specialized field he finally adopted, which was ceramics. He knew the chemistry of colors, did his own firing and developed new methods. His color sense was remarkable. He would combine strong tones in enamels with delicate ones in glass to obtain jewel-like effects. He

used neutral tones of green, blue and red for staining his massive, architectural furniture.

One of Neatby's best-known buildings was the central market hall for Harrod's Stores in London. A high, domed glass roof, black and white marble tile floor, and twenty glazed tile pictures representing hunting and shepherd scenes, made the place the most admired market of its day. The printing plant Neatby designed for Edward Evans of Bristol had a ceramic decoration set into a façade of enameled terra cotta blocks—a functionalist experiment, in that rain and smoke could not injure the tiles.

About the time that Edward VII ascended the throne, a noticeable change took place in London building. Instead of long rows of houses all alike, here and there residences of individual design appeared. A lively sign of the times was the modernization of shops. English shopkeepers generally had disregarded the Art Nouveau, whose curves were often too apparent in the stores of Paris, Brussels and Berlin. But the Morris movement had not altered shop interiors to any extent either. One of the interesting newly designed establishments was that of the Jaeger Woolen Company in Edinburgh, built about 1904. The designer of it was Charles Dawson, who never had done a shop before. Dawson had made a reputation for himself as a designer of advertising illustrations, magazine covers and posters. With extraordinary understanding he planned everything harmoniously and practically for Jaeger from the façade to the sign on the fitting-room door. For decoration he used colored glass, wrought iron, aluminum and copper. He covered the walls with a steel-blue fabric and sprayed it with six or seven colors. Doorknobs and locks were iron inlaid with varicolored enamels. Even the doormat and awnings had original designs.

One of the first steps away from the Morris movement in England was by way of the advertising poster. The best-

known English artists in this field around 1900 were Nicholson, Pride and the Beggerstaffs; but the last named gave the inspiration for the most famous type of commercial poster—the extremely simple, decorative flat-color one. The Beggerstaffs cut out pieces of colored paper, dropped them on the floor and arranged them in compositions. They made these experiments to help them compose designs for woodblocks illustrating hunting scenes. The effects they obtained by their method were dramatic and attention arresting. When Ludwig Hohlwein saw the prints in Germany, he visited the Beggerstaffs, and later he developed his own poster method which influenced artists all over Europe and the United States. (See German and French chapters.)

As the Morris movement waned, there remained one firm of interior designers which, through its consistently high standards, became the connecting link between the Gothic revival and today's modern style. The founder was Ambrose Heal. Today the house of Heal and Son, London, whose interiors were such an influence at the turn of the century, is just as distinguished as it was then.

teriors were such an influence at the turn of the century, is just as distinguished as it was then.

The great revival was over by about 1904. The Art Nouveau was rejected except by a few designers, chiefly of metal and fabrics. Tradition-loving England again looked affectionately upon Sheraton and Chippendale, and thus lost her opportunity to create the style of the machine age. But the continent, perhaps because it was less prosperous, and thus less conservative, soon produced it according to the principles England had restored. Freely utilizing twentieth century inventions, the modern style grew up in Belgium, Holland, Austria France and Germany. Austria, France and Germany.

PART II

ART NOUVEAU: THE BRIDGE THAT LED TO MODERN

ALL over continental Europe, the arts and crafts rebellion had prepared architects and designers for a radically new decorative style. Except among the tradition bound, it was agreed that the direction the British had taken was the right one. The classic principles, simplicity, unity, and form based on use, were gradually freeing applied art from tawdriness. But no one seemed to know where the movement was headed. The Arts and Crafts Society had settled in a rut. And nowhere, not even in England, had many artists ever believed that a return to the handicrafts and methods of the Middle Ages was either possible or desirable.

In France, Belgium, Holland, Germany, Austria and the Scandinavian countries, a few young artists had been quietly experimenting for a number of years with forms and ornament honestly expressive of contemporary civilization. Here and there among the many imitations of Morris, something really new and in good taste appeared. Chiefly this was in ceramics, glass and metal.

The majority of designers, however, continued to turn out period adaptations which were then atrociously carved out by machine. No country had an organized applied art movement. Still less was there a genuine realization anywhere that the designer's main field of activity in the immediate future would be in utilitarian articles which could be made in vast quantities for millions of people.

In the midst of this floundering came the style known in France and England as Art Nouveau, and in Germany and Austria as the Jugendstil. It was one of the most extraordinary manifestations in decorative art which the continent had ever seen. Yet it was also the bridge which led designers away from the historic periods. And largely because of the recoil from Art Nouveau extremes, far-seeing leaders in Central Europe readily convinced the designers that a rational style of simple forms and unadorned surfaces was the solution. In 1893, in Brussels, the young architect Victor Horta built

In 1893, in Brussels, the young architect Victor Horta built a house at 12 Rue de Turin which led to one of the two phases of Art Nouveau—that is, the use of the flowing line for purely ornamental purposes. The walls, floors, ceiling and balustrades of his house were decorated or inlaid with lines which suggested flowers, drooping stalks, waves and serpents, yet represented none of these. Always converging and diverging, in beautiful compositions, they wound their fantastic way through the building, within the bounds of structural uprights and bases. The designer of 12 Rue de Turin possessed talent, imagination and discipline. The house had charm, originality and unity.

Horta's idea looked to many artists like the end of the search. Eagerly they seized upon the curved line to express their emancipation from tradition. Within a short time, curvilinear ornament was a continental fashion, then a craze. The same artists who earlier had championed simplification now decorated everything they made. Walls, furniture, lamps and table silver, the pages of books and magazines, all overflowed with figural and floral Art Nouveau.

As suddenly as it had arisen, this cult of the line died, about 1906, partly because it had no relation to architecture and partly because hardly anyone had the sensitivity and skill to get beautiful results with it.

In spite of its short life, Art Nouveau was a genuine style.

Seen now from a distance of more than fifty years, it has greater significance and merit than was realized in 1900, when the spreading of bad taste seemed to many people to be its chief contribution. It was, in fact, a logical transition. Some Art Nouveau designs are still beautiful. And the artistic crafts certainly gained through it.

The influences which produced the style are so interwoven that no one group or country can be considered responsible for it. The increasing ease of travel and many new magazines on art and literature acquainted the artists of one nation with the activities of the others. Yet, Art Nouveau leads back the most directly to England. And the fact that the style was rejected there by an almost solid front of artists does not disprove this statement.

The Pre-Raphaelites had a great fondness for the long, flowing line and often sacrificed nature for the sake of a charming curve. Largely through them, the Japanese influence in painting spread over all of Europe. English, too, was young Aubrey Beardsley, master of pen and ink, who meteorically flashed across the art skies, leaving in numerous places imitators of the rhythmic line as he had drawn it.

In painting, which strongly influenced applied art, curved and waving lines, however, were also characteristic of Munch of Norway, Hodler of Switzerland, and Knopf and Toorop of Belgium. Moreover, contemporary literature and drama were directing life and thought into decadent aestheticism and romanticism. Curving line decoration as a style was a natural outcome of all of these evasions of a logical connection with reality.

Horta's brilliance and sincerity made him a leader of the modern style for many years. He was one of the first architects who dared to leave the steel skeleton of a façade exposed, and he employed metal and glass in ways which were revolutionary at the time. He was a masterly interpreter of the Gothic spirit and famous as a professor and director of the Royal Beaux Arts Academy in Brussels.

Another Belgian, Henry Van de Velde, introduced the second phase of Art Nouveau by using the curved line structurally. He not only designed some of the first furniture to be known by that name, but later on was a powerful force in directing the modern movement toward severe simplicity and functionalism.

Van de Velde was born in Antwerp in 1863. At first a painter of the Barbizon school, he turned to the crafts when he came under the influence of Ruskin and Morris. His most serious concern was soon the development of new forms and, as the flowing line was the contemporary expression, he used it to produce an original style.

He deserted the English movement because he decided rightly that, while Morris's doctrines were sound, the return to the Gothic style was decadent. Yet, with Charles Ashbee, he believed that its principles could be applied to mass production objects just as well as to handwrought pieces. As he saw people buying vast quantities of cheap furniture and household wares, he became convinced that the machine was the focal point of the era and the opportnity of the designer.

Through the lectures he gave in Brussels between 1894 and 1900, and by means of numerous articles, Van de Velde's ideas had become known in Europe long before his work was exhibited outside Belgium. His enthusiasm for the machine was making converts of a good many young artists. "The powerful play of their iron arms will create beauty, if beauty guides them," he exclaimed to his audiences.

Van de Velde had built himself a house in Uccle near Brussels, for which he designed all the furnishings, including the painted wallpaper, the household utensils and carpets. He had used the flowing line in his designs for ornamentation, but the basic lines of his furniture differed sharply from any then being made. Those curves had a purpose. A chair back conformed to the human body, the sturdiness of the curved legs had power. These two characteristics, logic and power, were to pervade all of Van de Velde's later work—buildings, glass, ceramics, textiles, book bindings, posters, metal work and jewelry.

But in Belgium he was a prophet without honor. And he finally left the country because of the violent opposition his theories aroused there.

The first major encouragement which the artist received came in 1897, when Siegfried Bing, an art dealer from Hamburg, visited the Uccle house with Maier-Graefe, the noted German art critic. Bing's special interest had been Japanese art, but he was about to open a different kind of shop in Paris. He commissioned Van de Velde to design four rooms for it, and gave the shop the name, L'Art Nouveau. When the place was opened, the revolutionary furniture designs divided the Parisian art world into two camps. On one side were the manufacturers of period reproductions, lined up with the conservative citizenry which was loyal to tradition. On the other were the young artists who followed the English Arts and Crafts movement and who also were experimenting independently. Bing made but little profit out of L'Art Nouveau and it soon closed, but the shop provided the starting point for the modern French school of applied art.

In England, the Art Journal of London said caustically of the opening of L'Art Nouveau: "To a Parisian accustomed from time immemorial to furniture of Henry II or Louis XV or Louis XVI, the decoration . . . might appear new, but for those who know the English style now in vogue, curiosity is certainly less. In Mr. Van de Velde's smoking-room, there were curves without any signification."

In the same year, Bing also sent the Belgian's furniture to Germany, for a showing at the Dresden exhibition of contemporary applied art. There, the designs which had found no favor in Belgium or England, and had shocked the French, were received with such acclaim that almost at once the designer became a celebrity. Art Nouveau was photographed and written about in newspapers and magazines all over the country. It was frequently described, quite accurately, as a style "uncontaminated by the past," although a few ornamental motifs did show the influence of earlier eras.

In Munich, then one of the great art centers on the continent, the magazine Jugend had been recently founded, with a number of gifted young illustrators on its staff. They, too, used the flowing line in their drawings. And what was Art Nouveau in France became known as the Jugendstil in Germany and Vienna.

There now descended upon Germany, and upon Vienna to a lesser degree, a flood of curling ornament. One end of a living room, for example, would be raised a step and this area framed in a wide arch. The sides and top of the arch were carved in shapes suggestive of vines, blossoms and other plant forms. Large rooms sometimes had two such divisions, one at each end. Hallways were decorated with arches, mirror frames and coat hangers of similar design. Vases, fabrics and screens were covered with flowing ornament. One architect designed a study which was divided into three sections of such restlessness that a fellow artist declared the only thing the owner could study in it was how to become insane. Stairs, lighting fixtures and furniture appeared to wriggle, either because of the shape or the decoration.

Whereas Horta's lines had grace and Van de Velde's purpose, too many lesser talents had not the feeling for proportion and those other imponderables which mark the difference between good and bad art. Some beautiful designs were made for silverware, linen, drapery fabrics and embroideries, but few for furniture. When the manufacturers

began to copy and adapt the Jugendstil for mass production, the style touched bottom. People of taste fled from it, humorists joked about it. When it was all over, much of Europe breathed a sigh of relief.

Van de Velde, in a later book, *Pages de doctrine*, describes in retrospect the mood of the artists of the period, as they threw off all discipline and violated good taste to revel in their freedom from the past. He says:

That which we experienced can only be compared to the sensation of deliverance which we feel at the first sign of spring . . .

We had gone through a long and tragic winter, an interminable winter, in the course of which we seemed to be about to succumb to the disgust inspired in us by the hideousness all about us.

We could have had recourse, after all, to those simple things, sanely conceived and charming; but that would have entailed a certain restraint. Too many forces of latent creation were clamoring for manifestation. And, in most countries, there arose artists to claim the right of creating something new, that is, forms and ornaments freed from all imitation of any style whatsoever. . . .

Born of the conviction that it was an end in itself, this new art was at first pretentious, enamored of itself. It was bound to lead to excesses, to irregularities and extravagant emulation, which to-day, at a distance of more than thirty years, put one in mind of a carnival, of individuality run riot.

Van de Velde, having an analytical mind, soon discovered "that the movement toward a new style could boast of a flag, but otherwise had no precise plan." He therefore worked out principles which could have resulted in a new classic architecture or a modern Renaissance. But this was a decadent age. The god of the future was going to be mass production. Under the circumstances, the best that could develop was modern functionalism.

Van de Velde believed that the beauty of an object lies in the purity with which its material is expressed; that is, a design made for wood should reflect what might be called the spirit of wood. Form should emphasize construction and make the function of an object clear. A modern illustration of his meaning, for instance, would be that a cigarette box ought to be made of material suitable for holding cigarettes and should look as if cigarettes belong in it. It should not be made of glass in the form of a baby grand piano. During a period when every conceivable thing was made so as to look like something else, this was a revolutionary idea. Unfortunately, glass pianos for cigarettes are a product of our own day, and not of the eighteen nineties.

Van de Velde was at times as guilty as anyone of bad design. During his early period especially, his "line of power" was often weak and he overdecorated. Yet by remaining true to his principles, he was always consistently modern.

An evil and a danger to the artists of the day was the viewpoint of the furniture manufacturers. They saw in the Jugendstil one of a series of successful new styles which, following each other, could bring in large profits whenever a new one was launched. They were unable to see it as a step in the development of one good, simple style.

"What was there left for us to do?" wrote Van de Velde recently. "To repudiate all these perverted forms, to unmask all the nonsense, all the eccentricities, and to discover once more the essential forms of a house, table, chair, bed, and all other indispensable objects in use in our daily lives." So modern started on the road to functionalism.

In 1900, Van de Velde opened a studio in Berlin. In 1901, the Duke of Saxe-Weimar summoned him to "raise the artistic level of the industrial production of the country," and the artist became the director of the famous Kunstgewerbeschule in Weimar.

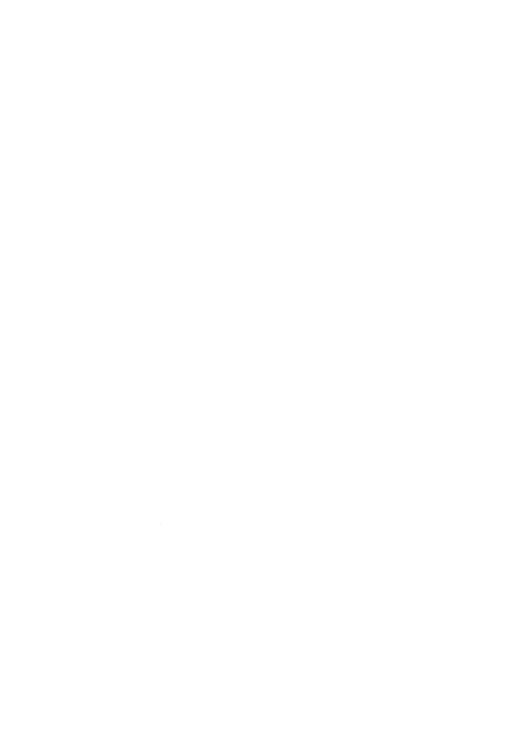
During the same year, the Paris International Exposition made Art Nouveau a fashion in France, in spite of the fact that most artists were still doing traditional work. The ex-

hibition was a proof that Art Nouveau had already spread over much of the continent. Holland, Denmark, Finland and Hungary were among the countries which displayed designs created according to the new principles.

In Germany, in a dozen cities, artists had been following the theories of William Morris. Now, with the forceful Van de Velde in Weimar, they obtained a stimulus they had not been able to get from academic schools and museums. The Jugendstil spread from Munich to Dresden, Berlin, Leipzig, and other cities, and then to much of the rest of Europe.

Henry Van de Velde made Germany his home for twenty-five years, always in the forefront of the movement which he had helped to shepherd from the tipsy carnival days of the Jugendstil. His work can be divided into periods. The first, from 1896 to 1906, was the period of the decorative line, so different from Horta's elegant curves. After that, the architectural problems of mass and space became his greatest interest, and function assumed more and more importance. Notable examples of this period were public buildings and theaters in a number of German cities.

Looking back over his contributions, one sees that Art Nouveau-Jugendstil was not at all as ridiculous as it was thought in 1925. It was what the names indicate—new and young. It was irresponsible, yet contained the seed of a hardy maturity.



PART III

MODERN BECOMES GOOD ART IN EUROPE

FRANCE

REFERRING to Art Nouveau as a name for a decorative style, Eugène Grasset once remarked, "The birth of such an expression, accepted almost without question, is a sign of deep artistic malady."

It was true. The materialistic "new" gave little, if any, inspirational support to a style which was trying to replace the magnificence of those earlier ones bearing the grand names of Louis and Empire. Equally bad, it seemed to some people, was the fact that Art Nouveau had been launched in Paris by a foreigner. The unchallenged acceptance of the prosaic term and alien idea was really added evidence that national applied art was not only sick, but moribund.

Far more than England, France had gone through storms that shook the nation economically and spiritually. During the Revolution, the tradition of aristocratic art had been broken under the wheels of the tumbrels which carried the nobility to the guillotine. The famous art schools, which had been dependent upon funds given them by the great families, disappeared. The nineteenth century brought the upper and lower middle classes to the forefront, the upper utilizing science and multiplying machines, the lower tending them and using their cheap products. Thereupon the craftsman, unable to compete, was driven into the factory.

During such a period of flux and reorientation, there can be no decorative style. So that all the applied art that appeared in France during the first half of the nineteenth century was what one writer termed the "imitation style."

As in the other European countries, the painters and sculptors had haughtily separated themselves from the crafts and industrial arts. Commercial artists had no access to the exhibition salons until the Salon d'Automne was founded in 1903. Few talented men condescended to make designs for practical use, and those who did so took little or no pride in their work. Neither did they possess any understanding of the problems of manufacture. Inevitably, then, the artist condemned the bourgeois factory owner for turning out hideous articles, while the latter abused the artist for his worthless work. Another confusing fact was that, while, for example, a sewing machine decorated with polychrome was condemned as ugly by artists and aesthetes, the housewife preferred it. This problem is still not entirely solved anywhere.

Both leadership and money were sorely needed to revive the arts and crafts. But the nouveau riche were uncertain or indifferent regarding art of any kind, and the impoverished aristocracy could not help. In the meantime, the master craftsmen were dying off without having passed on their skill to the younger generation.

The seriousness of this condition was reflected in the industrial exhibitions. These showed that thus far the chief contribution of the machine was that it turned out many cheap things rapidly. Nevertheless, as the factories increased, their owners also took pride in displaying their wares, for from a total of 110 industrial exhibitors in 1798, the number rose to 4,322 in 1849. And when the Great Exhibition of London in 1851 took place, the welter of monstrosities that filled the halls demonstrated to the disgusted French art world that taste and honesty in the crafts had touched bottom.

At this time, those new marvels, the buildings of iron and glass, so hated by Ruskin, were appearing in France, too. The engineer began to look like the architect of the future, as the glass-roofed railroad stations and the great bridges with their slender tracery of cables rose against the sky. While the peasants still shook their fists at the passing trains, the sophisticated public regarded the new conveniences and structures as wonders of progress. One of the best of such buildings was the famous Paris exhibition hall, the Salle des Machines, which was torn down when a later generation was persuaded that it was ugly. The Eiffel Tower, designed in 1888 by Gustave Eiffel, was marked for destruction in 1900, but fortunately was saved.

In the meantime, from England, the angry voice of Ruskin had been sounding through the fog of bad art. A small revolt was started in Paris by designers who detested copying the past, and they began to make furniture, fabrics and art objects original in design and with a respect for the materials. No noticeable attention was bestowed upon them.

When the Paris Exposition of 1855 revealed what great progress had been made in mechanical processes, the new magazine, L'Art du XIXe siècle, started a campaign for the establishment of the first French industrial art museum. In 1863, a group of industrialists founded the Union centrale des beaux arts appliqués à l'industrie, with the purpose of "furthering the cultivation of the arts which aim at the realization of the beautiful in the useful." While this was a decided step forward, the fundamental error concerning industrial art continued. In most people's minds, all applied art was still confused with ornament, and thus no object was "artistic" that was not decorated.

The new Union Centrale held its first exhibition during the year of its founding, and a report by Count de Laborde, favoring drawing instruction in all school grades, was probably the most constructive recommendation made at the meeting. A program, providing for geometry as a base of the instruction, and with emphasis on the needs of industry, was prepared by Eugène Guillaume. Later, an International Congress was organized to make recommendations for a course of study, and this became obligatory for the French primary and secondary schools.

With existing conditions so dismal all progress made by the organizations was necessarily slow. A report on the Union Centrale's Exposition of 1867 stated that overemphasis of skill, neglect of inventiveness, overornamentation, and the disregard of an object's use were too prevalent in contemporary design. A commission of Encouragement was therefore established. One outcome of this was that workmen, selected by their fellows, were given the opportunity to study the production processes involved in making the articles exhibited by the Union.

The writings of William Morris and Walter Crane were eagerly read by many younger artists and, as a consequence, there was a small revival of handmade metal and glass. The noted architect, Viollet-le-Duc supporting the English movement, taught that the architect should "create and arrange, as part of his responsibility, construction, decoration and furnishing," in order to obtain unity of design.

All of these occurrences, each unimportant by itself, were nevertheless beginning to have a wholesome effect on the appearance of French interiors. A good many heavy velvet hangings came down. Color combinations formerly called "restful," such as black woodwork with red fabrics, made way for simpler textiles and lighter tones. There was also another bright influence. From 1852 to 1870, while Napoleon III was emperor, his gay and ambitious Spanish wife, Eugénie, was an enthusiastic patroness of the arts. And through her interest in fashion, she stimulated the design of fabrics and jewelry.

By this time, new schools and industrial museums were being established in Lyons, the silk center and in Rennes, Marseilles, Rouen and Nancy, as well as in Paris. The Beaux Arts reorganized its School of Design and Mathematics into the National School of Decorative Arts. In 1880, the work of the Union centrale des beaux arts appliqués à l'industrie was able to become a greater influence through its new publication Revue des arts décoratifs, and soon a stronger organization, L'Union centrale des arts décoratifs, emerged as the earlier group joined forces with the Musée des Arts Décoratifs. New libraries, societies, competitions and exhibitions helped not only to train competent young craftsmen, but to educate the general public. In 1889, the Société pour l'encouragement de l'art et de l'industrie had founded l'École Boulle, where instruction in furniture design was offered to talented pupils as young as twelve years old. The applied art societies were frequently reorganized or merged in order to strengthen their activities and broaden the national program of art education.

The first objects of applied art that were made in France according to functional principles were produced during the 1880's. They were mostly small, simple pieces of ceramics and glass revealing Eastern influence. Japanese prints and pottery had long been known, and ever since the eighteenth century, Chinese-inspired art had been familiar furnishings in the great houses. Lacquer work was also highly developed. It was natural, as a simpler decorative style approached, that a keen interest should arise on the part of the designers in the exquisite glazes of Eastern ceramics.

After long experimentation, two artists, Carriès and Chaplet, discovered the secret of the Chinese glaze. Then, Delaherche produced a stoneware of high fire kiln which became the outstanding achievement of French ceramics. This ware is free of ornamentation, and obtained its decorative effects through the glaze. One of the first experimenters in glass tech-

niques was the many-sided Gallé, who had been working in the crafts since 1875. He brought out a softly lustrous glass, discarding ornament to emphasize the beauty of the material.

The International Exposition of 1889 in Paris was the high point of these early beginnings. The works of Brateau, Carries, Chaplet, Delaherche, Grasset, Gallé and others, were on display; the Eiffel Tower and the Galerie des Machines were triumphs. But with few exceptions, furniture designers and manufacturers remained concerned with the traditional periods. Léon Moussinac relates that one of the exhibitors had copied an old tapestry so perfectly that, in his pride, he placed a sign on his product, with the word "new."

Soon thereafter, independent cabinetmakers, inspired by the British revival, began to use light-colored woods and to emphasize the grains. New and rare woods were brought in from the French and other colonies. And as inlays of ivory, metals, mother-of-pearl and polychrome replaced ornament, the familiar bronze trim disappeared in favor of a new kind of luxurious craftsmanship.

One cause for the delayed development of a good new style was due to the architects, painters and sculptors who were beginning to work in applied art. Without understanding materials or the problems of execution, often their principal aim was to be original. But, bad as design and workmanship frequently were, the experiments did arouse some public interest.

In 1891, due to a campaign waged by the art critic Roger Marx, industrial designers were permitted to hold their first salon exhibition. In 1895, the Artistes Français gave them a similar opportunity; 1897 saw the appearance of the important magazine Art et décoration. And now the leaders of the small group working in the modern style began to receive invitations to show their work beyond Paris. Exhibitions were organized for Germany, Vienna and elsewhere.

Siegfried Bing brought Van de Velde's work to Paris in

1897 (See Art Nouveau). The shop L'Art nouveau was a financial failure, but a similar place, Maison moderne, soon opened. The curvilinear style was the sensation of the Paris International Exposition in 1900, but, just as the Jugendstil was vulgarized in Germany, it also reached unfortunate extremes in France.

The year 1901 marked the founding of the Société des artistes décorateurs, by René Guillère. The struggles of this organization were intensified by the indifference and even hostility of the manufacturers. A few exhibitions were held at the Musée Galliéra, the first in 1902, but not until five years later was it possible to arrange for annual shows, first in the Pavillon de Marsan, and later in the Grand or Petit Palais.

In architecture, the jumble of periods and ornament had become so bad that an ordinance was passed by Alphand, the noted director of Public Works in Paris, ordering that all houses should have a white façade. For years, no architect could obtain permission to paint a building front in color until, with the passage of time, the ordinance was ignored.

The two men who did the most revolutionary and influential architectural design in the modern style were A. G. Perret and Tony Garnier. They were the first in France to use concrete on the inside as well as on the outside of a building, without disguising the material or adapting it to a period design. Accustomed as one is today to this type of construction, the innovation does not seem daring. But in the 1890's the sight of a concrete façade, naked and unashamed, greatly shocked the public and the academic architects. Perret (born 1873) emphasized the vertical and horizontal girders and beams which support a building. To those who hated machine-made products, of which steel was one, this was heresy. He avoided traditional ornament, and some of his buildings have none at all. He also used the setback in an early apart-

ment house, and provided for the use of the roof as a place of recreation.

Garnier (born 1869) attracted attention in 1904 when he was still a student at the French Academy in Rome. He designed a modern industrial city, the plans for which have been a source of inspiration and criticism ever since. Garnier designed flat roofs, eliminated moldings, and employed glass in new ways. His city had schools with playgrounds, tree-lined streets, and he did away with narrow inner courts.

Later, Le Corbusier, whose true name is Charles Edward Jeanneret, (born in Switzerland in 1887), became one of France's most productive architects. While Le Corbusier did not entirely throw off early modern influences until the first great war, he has since become one of the most famous functionalists in the world. Jacques Carlu's work of transforming the Trocadero into the Palais de Chaillot was an interesting illustration of the transition period. He created a vast vista and hollowed out an underground theater below the terraces.

As to the designers of applied art, some of the best were employed by Bing, although the work of some others was equally important. Probably the most noted l'Art Nouveau names are Plumet and Selmersheim; others who were distinguished are Colonna, de Feure, Dufrêne, Gaillard, Fallé, Jallot, Lalique, and Hector Guimard, who designed the entrances of the Paris Metro.

Gallé was a brilliant and versatile designer. He was born in 1846 in Lorraine, and died in 1904. His father had been a worker in glass and ceramics, and the son studied the crafts both in France and Germany, working for a while in a glass works in the Saar valley. He experimented ceaselessly with materials, forms and ornament. In 1889, Gallé's exhibited work brought him a reputation which spread far beyond his native Nancy. He loved glass especially, but was also interested in obtaining modern effects through the grain and cut

of woods, and with the use of mother-of-pearl and copper inlays. L'Art et décoration wrote of him in its obituary: "First his pottery, then his furniture... finally his glass... all form a sort of charming and varied museum, a poetic and enchanted collection of the nature and the flora of his district." But taste changes, and in 1936, when modern was more functional, Francis Jourdain commented: "A piece of furniture by Gallé is a mistake, or rather, folly."

Eugène Grasset was a student of nature and of every art period, and was gifted with energy and thoroughness. He contributed a good deal of originality to wallpapers, wrought iron, carpets, glass, furniture, ceramics, embroideries, posters and book illustrations, as well as to architectural design. He introduced a new method of stylization, and was so fascinated by plant structure that someone said of him: "He applied the scalpel of the surgical botanist in creating his floral designs." Grasset advocated the inclusion of courses on botany and geology in the industrial art schools. He emphasized the importance of lines, not only curved, but straight, wavy and those made by dots and dashes. Concerning ornament he said, "Two important laws govern ornamental art. The first is that the general form of decorated objects should be adapted to the use of these objects, and that this form should not be changed by these ornaments. The second is that material opposes a limit to the exact representation of natural objects, and that this limit should never be exceeded by any tour de force."

René Lalique was, and still is, the genius of glass design. His work is world famous, and he did more, perhaps, than any other designer to establish glass as a modern medium for the designer and manufacturer. He has made exquisite table glass, decorative boxes, vases and perfume bottles, featuring his smoky, dull green, purple and white glass. At an exhibition of the Salon d'Automne, he showed an oval glass bathtub, reinforced with strips of silver, in a room with glass paneled

walls. One of his fanciful chandeliers consisted of swirls of glass set together to form a circular fixture. He was the designer of the famous glass fountain at the International Exhibition in 1925.

Lalique was probably the most important influence in the design and popularizing of costume jewelry. His aim was to create a charming piece which would harmonize with a dress and a personality, instead of proclaiming a woman's wealth. For his brooches, necklaces, hat pins, earrings and other articles, he has used silver, copper and gold, enriching them with precious and semiprecious stones, enamels, carving and engraving.

The space within this book is too limited to describe the early struggles of the young French designers. The public remained faithful to its old favorites, the periods, and not entirely without sound reason. The obstacles were numerous which the modernist was obliged to consider, combat and conquer within and outside of himself. In 1903, Art et décoration complained of the uselessness of many of the new art objects. "We are indeed inundated," said a writer, "with the production of 'objects of art,' useless objects, objects of pure luxury." Other critics objected to the whole movement, declaring that snobbism had imposed the British influence on their country. The designers were urged to develop a more national style. "The reproach most commonly made against English decorative art is that it remains strictly, ruthlessly English," said one journalist. "Why do we not take as much pains to remain ourselves strictly, ruthlessly French?" Censured but rarely encouraged, there remained but one thing for the modernist to do; to study and work.

In 1901, the Société des Artistes Décorateurs organized a combined exhibition of artist craftsmen and designers, and the Musée Galliéra began periodic showings of applied art in wrought iron, fabrics, laces and decorative objects. In 1903,

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when the Salon d'Automne was founded, a section was provided in which the artist decorator could exhibit on an equal basis with painters and sculptors. At length, by 1910, as the result of group activity, the entire movement was strong, and public recognition gradually increased.

public recognition gradually increased.

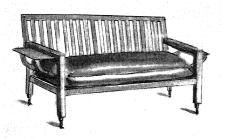
The story of French applied art is incomplete without mention of the advertising poster and the Ballet Russe, both of which had a strong influence on design generally. In 1901, the country lost through death Henri Toulouse-Lautrec who, with four others, had raised the lowly placard to a thing of beauty. Responding to the trend toward simplification, and influenced by the Japanese woodcut, they designed theatrical posters with magnificent dash, color and gaiety. Jules Cheret was one of the five. His poster announcing Lois Fuller's appearance at the Folies Bergères is still famous. French in its spirit, it reveals Japanese influence in the rhythmic flow of swirling draperies and the simple composition. The others who brought the French poster close to perfection were Grasset. Steinlen and Mucha. The latter was a Czech. His favorite medium was water color, which he handled with brilliant understanding. Some of his decorative panels were made in the United States for theaters in New York City.

The Russian ballet, starring the peerless Nijinsky and Karsavina, remained in Paris for six years. Not only were stage costuming and settings influenced all over Europe by the productions, but fabrics for clothing and furnishings as well. The barbaric splendor created for the ballet by Leon Bakst was a revelation to people accustomed to stuffily furnished homes and realistic clutter on the stage. Unfortunately, the fashion resulted in some vulgarities in color and pattern.

Other influences too, brought color into Parisian studios and houses. In Austria there was a revived interest in folk art. The Viennese were using Hungarian and Slavic peasant colors for their modern fabric designs, as well as the dramatic contrast of black and white. The primitive colors of Cézanne and Gaugin, and the geometric forms of futurism and cubism also influenced textile design.

Paul Poiret admired the work of the Viennese. For the occasion of a visit there, he had designed an evening dress for his wife, made of a Wiener Werkstätte fabric. Mme. Poiret wore it at the reception given in her husband's honor. But this courteous gesture earned him severe criticism at home. Poiret then decided to make his own fabrics, dramatize women's clothes, and to express the exhilarating times through textiles and interiors of every description. He established the Martine School and shop, named for his daughter, and personally supervised the work of the pupils. Poiret's revolutionary "primitive" fabrics, some based on designs made by children who studied at Martine, became famous. One of his early interiors exhibited in the Martine shop was furnished with a couch overflowing with cushions of velvet, damask and brocade, shielded by a canopy and side draperies. A bathroom had walls of black tile and a tub and basin of gold mosaic. Light bulbs, in the form of lemons and oranges, grew on stylized trees painted on a wall. A later example of Poiret's work was a dining room on the liner, Ile de France. The paneled straw walls represented a jungle painted in brilliant tones of red, blue and green, while the rug was patterned in fantastic and colorful foliage and flowers.

The great silk houses of France had also begun to introduce contemporary designs. Bianchini-Ferier was manufacturing hand-block linens and brocades from designs by Raoul Dufy, Robert Bonfils and Charles Martin. Ducharne placed Michel Dubost in charge of the design department. Benedictus, Jallot and Jaulmes created for Brunet, Meunie et Cie. But the beautiful fabrics did not find general favor among women for some time. They were regarded as too exotic and were used mainly by the great dressmakers and decorators. More than a



Bench by C. F. A. Voysey, 1907. Studio.

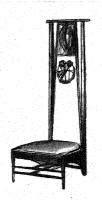


Table and chair by M. H. Baillie-Scott, 1901.

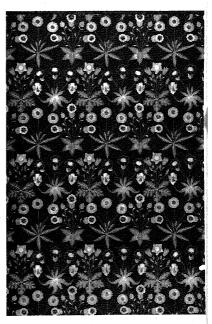
Kunst und Kunsthandwerk.



Cabinet by M. H. Baillie-Scott, 1901. Studio.

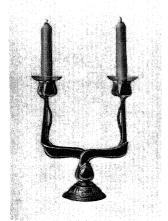


Chair by Charles R. Mackintosh, 1902. Deutsche Kunst und Dekoration.



Wallpaper "The Daisy" by William Morris,

ART NOUVEAU



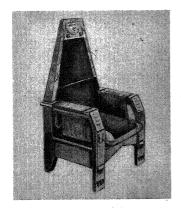
Candlestick by Heinrich Vogeler, Worpswede, Germany, for Maison Moderne, Paris, 1902. Deutsche Kunst und Dekoration.



Metal Picture Frame by Rudolph Bosselt, Germany, 1902. Deutsche Kunst und Dekoration.



Chair by C. Bugatti & Co., Milan, Italy, for Turin Exhibition, 1902. Deutsche Kunst und Dekoration.



Chair by Joseph M. Olbrich, Darmstadt, Germany, 1901. Studio.



Chair by Henry Van de Velde, Brussels, Belgium, 1899. From a catalogue.

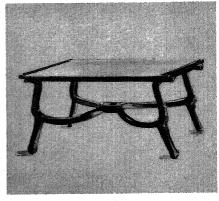
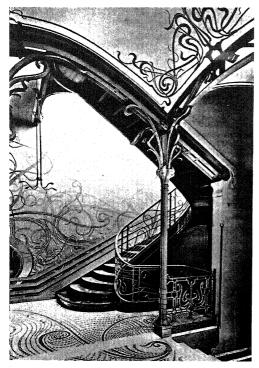


Table by Henry Van de Velde, Brussels, Belgium, 1899. From a catalogue.

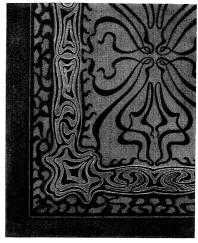


Metal Pitcher by Keller Frères, Paris, France, 1901. Kunst und Kunsthandwerk.

ART NOUVEAU



Staircase in Brussels, Belgium, by Victor Horta. Pioneers of the Modern Movement by Nikolaus Pevsner.

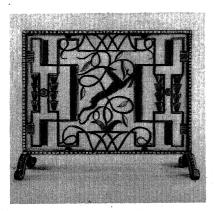


Rug by Ginsky, Vienna, Austria, 1903.

Art et décoration.



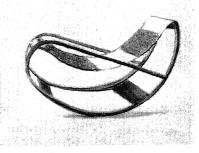
Chair with Aubusson Tapestry by Dominique, 1939. Mobilier et décoration.



Metal Screen by Edgar Brandt, 1928. Art et décoration.



Pottery Vase by Rena Buthaud, 1927. Art et décoration.

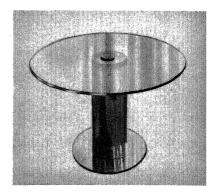


Metal Rocking Chair by François Turpin, 1933. Art et décoration.

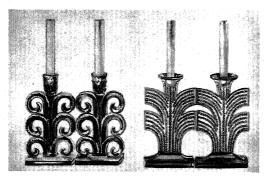
FRANCE



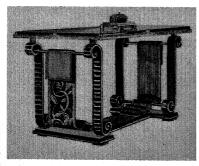
Pottery Vase by Robert E. Lallemant, 1927. Art et industrie.



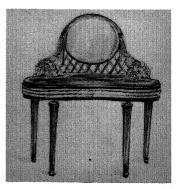
Glass and Aluminum Table by Djo Bourgois, 1930. Art et décoration.



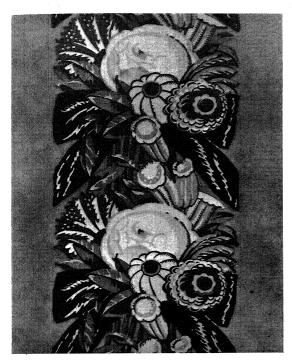
Glass Candlesticks by R. Lalique, 1935. Art et décoration.



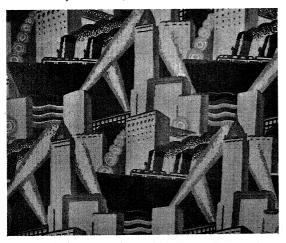
Metal Table by Paul Kiss, 1928. Art et industrie.



Dressing Table by Paul Follot, about 1915. Art français décoratif.



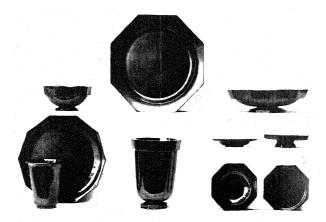
Printed Fabric by André Mare for Compagnie des Arts Français, about 1918. Art français decoratif.



Wallpaper by C. Bellenfant, 1928. Art et décoration.



Glass Vase by Maurice Marinot, 1918-25. Art et décoration français.



Black Luster Vases by Paul Boniface, 1930's.



Ceramic Vases by Luc Lanel, 1930's. Mobilier et décoration.



Silver Tea Set by Puifurcat, 1931. Art et décoration.

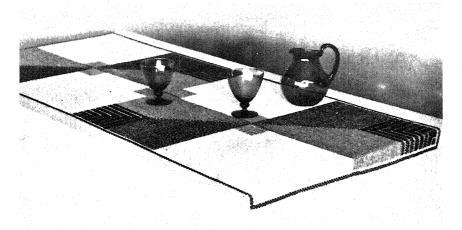


Table Cover by Rodier, 1920's. Art et décoration.

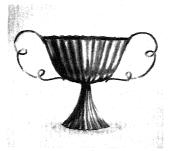


Brocade for Bianchini by Raoul Dufy, 1928. Creative Art.

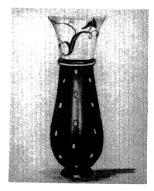
AUSTRIA



Metal Horse by Karl Hagenauer, 1930. Austrian Applied Arts.



Brass Bowl by Prof. Josef Hoffmann, 1920. Wiener Werkstaette catalog.



Terracotta Vase by Dagobert Peche, 1921. Wiener Werkstaette catalog.



Willow Chair by Josef Zotti, 1912. Deutsche Kunst und Dekoration.



Silver Clock by Edward Wimmer, 1916.

Oesterreichischer Werkbund.



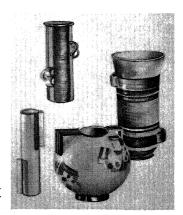
China Coffee Set by Prof. Josef Hoffmann, 1916. Oesterreichischer Werkbund.



Bentwood Chair by Jacob and Josef Kohn, 1903. Deutsche Kunst und Dekoration.



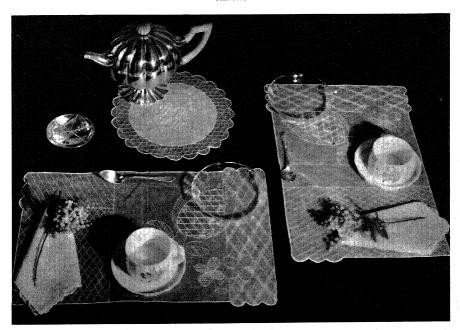
Silver Box by Dagobert Peche for Wiener Werkstaette, 1923. Neues Kunsthandwerk, Germany.



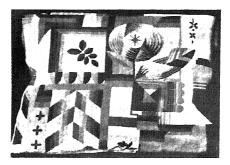
Ceramic Vases by Gudrun Baudisch for Wiener Werkstaette, 1930. Austrian Applied Arts, Vienna.



Ceramic Mantle by Vally Wieselthier, 1924. For Wiener Werkstaette.



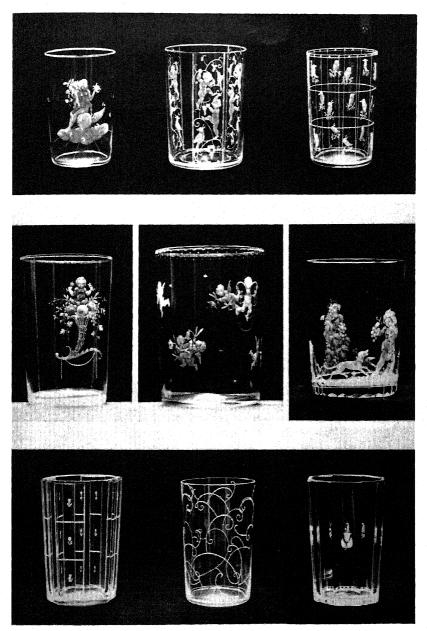
Embroidered Net Table Sets by Emmy Zweybrueck, 1930.



Woven Pillow by Mizi Otten, 1926.



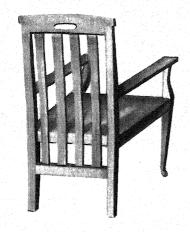
Silks and Linens by Wiener Werkstaette Artists, 1908. From Wiener Werkstaette Fabric Samples.



Engraved and Etched Glasses by Prof. Michael Powolny, 1915. Deutsche Kunst und Dekoration.



Ceramic Radiator Cover by Prof. R. Obsieger, 1932. Deutsche Kunst und Dekoration.



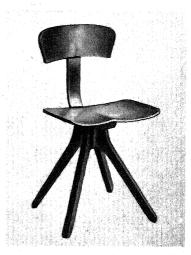
Chair by Henry Van de Velde, Weimar, 1907. Studio.



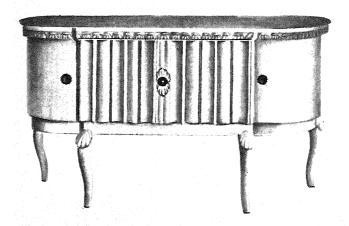
Ietal Chair by Marcel Breuer, 1927. Bauhaus Circular.



Metal Lamp by Prof. Fritz A. Breuhaus, 1924. Deutsche Kunst und Dekoration.



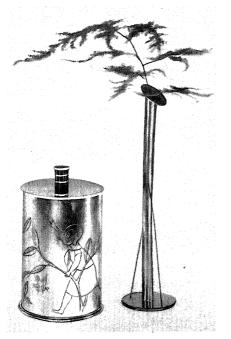
Kitchen Chair by Ernst Rockhausen, 1930. Die Form.



Sideboard by Prof. Bruno Paul, Berlin, 1913. Deutsche Kunst und Dekoration.



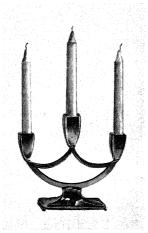
Desk and Chair by Prof. Fritz A. Breuhaus, 1925. Deutsche Kunst und Dekoration.



Copper Box and Flowerholder by Prof. H. Zeitner, 1909. Die Pyramide.



Silver Enamel Boxes by Paul Lazlo, Stuttgart, 1929. Kunst und Kunsthandwerk, Vienna.



Silver Candlestick by Emmy Roth, 1912. Deutsche Kunst und Dekoration.

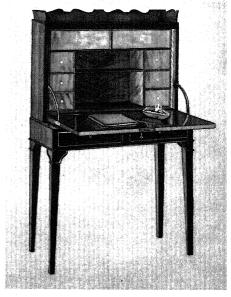


Brass Lamp by Waldemar Raemisch for Deutsche Werkstaetten, 1923. Das Neue Kunsthandwerk.



Printed Silk by Prof. Joseph Hillerbrand, 1929.

Deutsche Kunst und Dekoration.

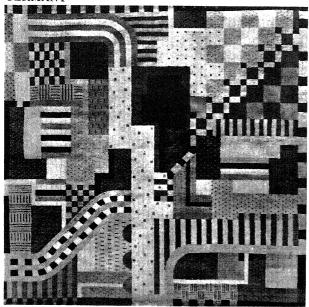


Writing Cabinet by Karl Bertsch, 1924. Deutsch Kunst und Dekoration.

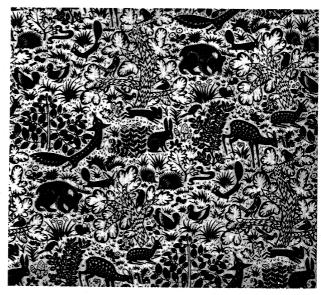


Dinner Service by Margarite Freidlander for Berliner Porzellan Manufaktur, 1931. Art et décoration.

GERMANY



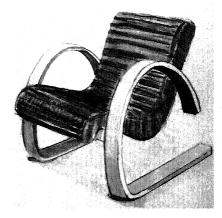
Hooked Rug by M. Erps for Das Bauhaus, Weimar, 1925. Bauhaus Buch #7.



Printed Fabric by L. H. Jungnickel, 1931. Deutsche Kunst und Dehoration.



Glass Vase from Val St. Lambert, 1930's.



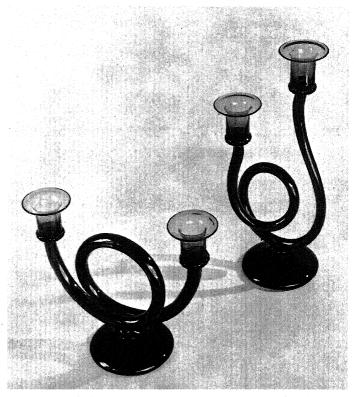
Bentwood Chair by Bauguist, 1930's. Industrie des métiers d'art en Belgique.



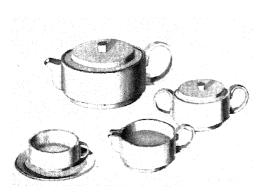
Leerdam Glass by A. D. Copier, 1930. Official Netherlands Photograph



Teapot in Pewter by Hoecker & Son, 1901. Kunst und Handwerk, Vienna.



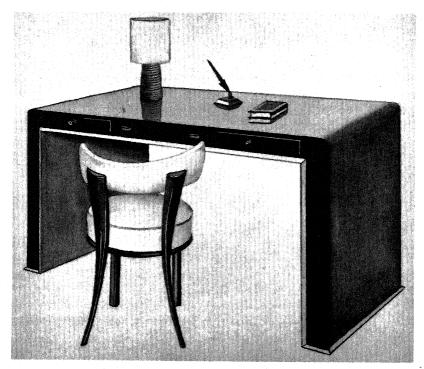
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Tea Set by Guido Anchoviz for Manifattura di Laveno, 1933. Domus.



China Vase by Richard-Ginori, 1926. Deutsche Kunst und Dekoration.



Desk and Chair by Gugliemo Ulrich, Milan, 1933. Domus.



Chair by Gustavo Pulitzer for S. S. Conte di Savoia, 1933. Domus.



Table by Gio Ponti, 1938. Domus.

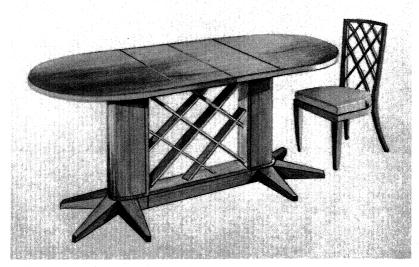
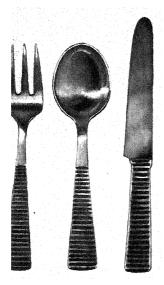
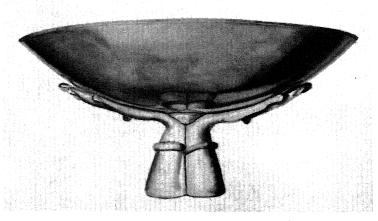


Table and Chair by Gio Ponti, 1936. Domus.



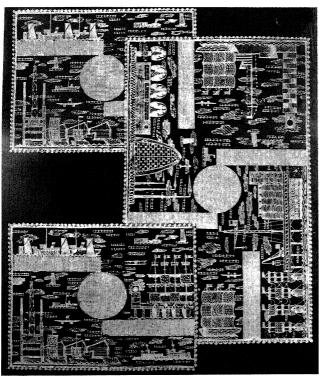
t Silver by Renzo Zavanella for genteria Miracoli, Milan. Domus.



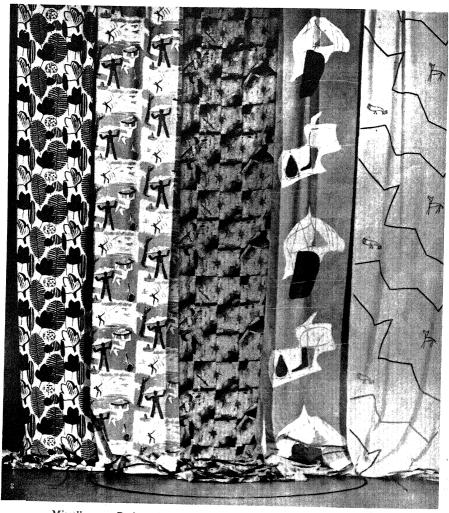
Glass Bowl by T. Buzzi for Venini, Murano, 1933. Domus.



Ceramic Horse by Cooperativa Ceramica di Imola, 1938. Photograph by Gio Ponti.



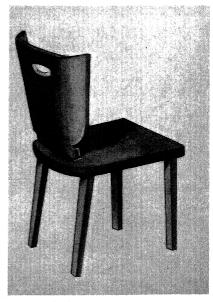
Embroidered Net Tablecloth by F. Albini and E. Giancarlo Palanti, 1931. Domus.



Miscellaneous Designers' Fabrics from a Prize Competition, 1933. Domus.



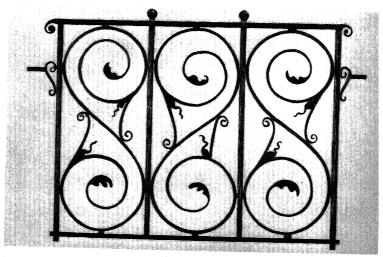
Chair by E. G. Asplund, 1925. Catalogue of Paris Exhibition.



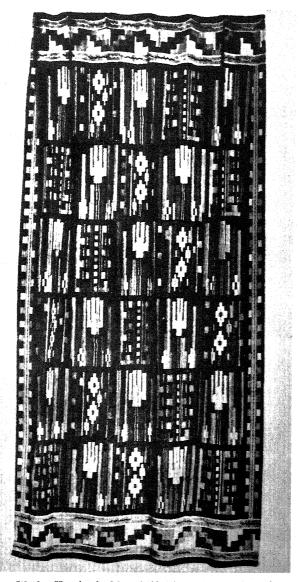
Chair by Carl Malmsten, 1937. Det Moderne Hemmet.



Fayence Bowl by Wilhelm Kaege for Gustafsberg, 1926. Moderne Schwedische Werkkunst by Eric Wettergren.



Wrought Iron Railing by Ragnar Ostberg, 1926. Moderne Schwedische, Werkkunst by Eric Wettergren.

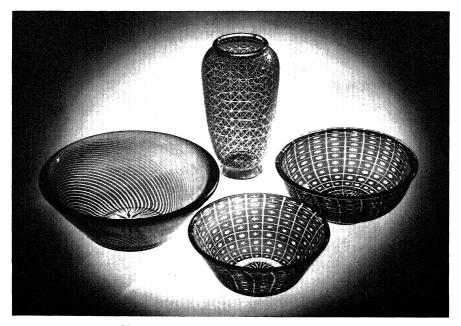


Woven Woolen Hanging by Marta Måås Fjetterström, 1926. Moderne Schwedische Werkkunst by Eric Wettergren.

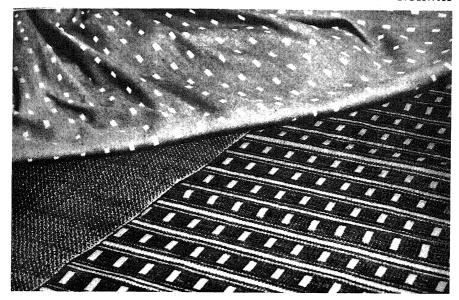
SWEDEN



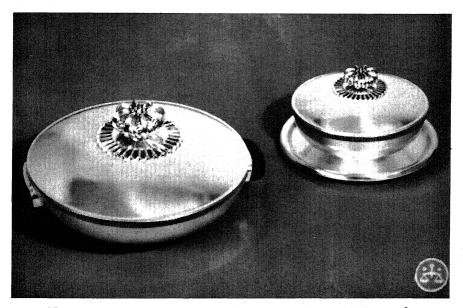
Glass Vase by Gate for Orrefors.



Glass Vase and Bowls by Hald for Orrefors.



Woven Fabric by Norwegian Handicrafts, 1940. Bo-Nytt.



Silver Dishes by Norwegian Handicrafts, 1930's. Norwegian Official Photograph.

DENMARK



Silver Pitcher by Ray Fisker for A. Mickelsen, 1942.

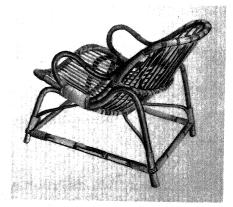
Die Form.



Porcelain Vase by Ove Larsen for Bing and Gröndahl, 1926. Catalogue of American Federation of Art Exhibition, 1928-29.



Pottery Vase by Jais Nielson for Royal Porcelain Works Factory, 1940. Die Form.



Bamboo Chair by Flemming Lassen, 1940. Dansk Kunsthandwerk.



Vases of Royal Copenhagen Ware, 1930's.



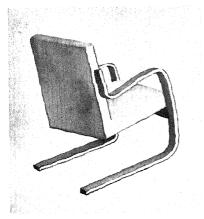
Silver Bowl and Cover by Georg Jensen, 1930's.

Courtesy, The Cleveland Museum of Art.



Vase and Bowl by Ebbe Sadolin for Bing and Gröndahl, 1940.

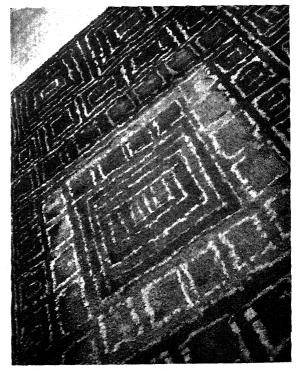
FINLAND



Chair by Aalto, 1937. Det Moderne Hemmet.

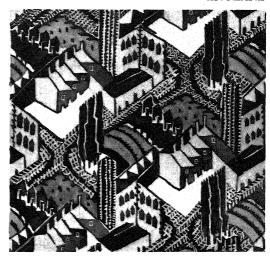


Ceramic Giraffe by Michael Schilkin for Arabia, 1938. Finnish Society of Decorative Art.



Rug by Lisa Johansson, 1938. Svenska Hem.

ENGLAND



Printed Fabric by Doris Gregg for Joyce Clissold, 1930.

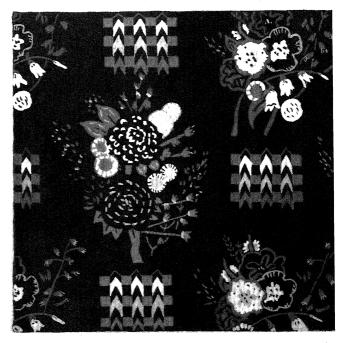
American Federation of Art Catalogue.



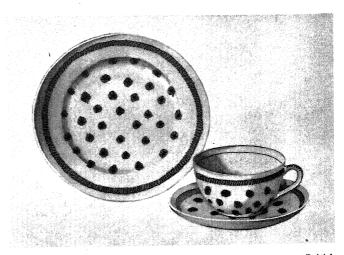
inted Fabric by Reco Capey for Arthur Lee & Sons, Ltd., 1930. American Federation of Art Catalogue.



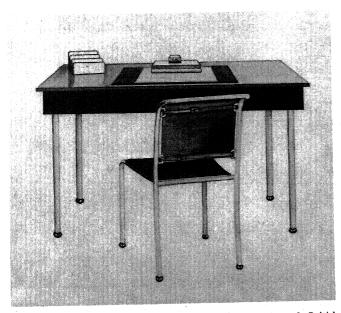
Fabric by Elisabeth Forbes for Cotton Board, 1930's. British Achievement in Design.



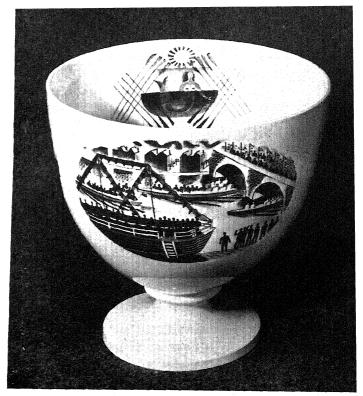
Printed Textile by Foxton Fabrics, 1919. British Achievement in Design.



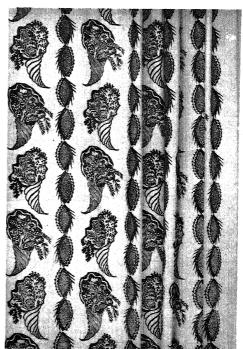
Cup and Plate by Graham Sutherland for Brain & Son, 1930. British Achievement in Design.



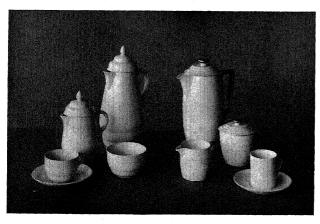
Desk and Chair by Raymond McGrath for Heal and Son, 1936. British Achievement in Design.



China Vase by Eric Ravilious, 1930's. British Information Service, New York.



Handprinted Linen by Enid Marx, 1938. Victoria and Albert Museum, London.



Coffee Services. Left: by Harold Stabler. Right: by Keith Murray for J. Wedgewood & Sons, 1935. Victoria and Albert Museum, London,

ENGLAND



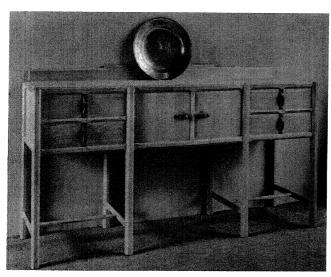
Glass Vase and Bowl by James Hogan for J. Powell & Sons, 1930's.



Nursery Service by Eric Ravilious for J. Wedgewood & Son, 1930's. British Information Service, New York.

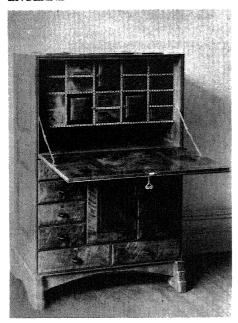


Sideboard and Chair by Ernest Gimson, about 1905. Council of Industrial Design, London.



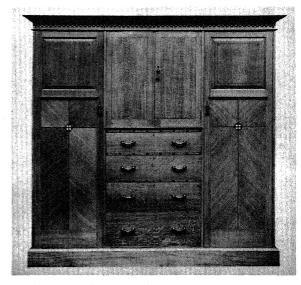
Sideboard by Gordon Russell, about 1923. Council of Industrial Design, London.

ENGLAND

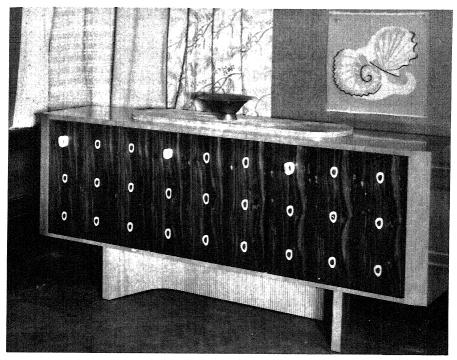


Writing Cabinet by Edward Barnsley, about 1933.

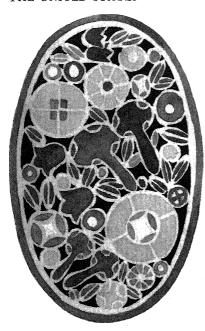
Council of Industrial Design, London.



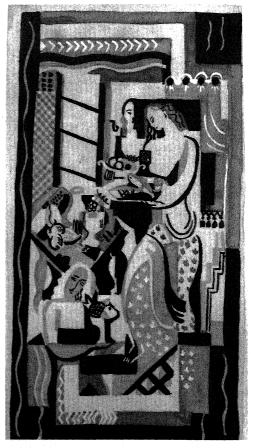
Wardrobe by Ambrose Heal, 1900-1910. Council of Industrial Design, London.



Sideboard by R. D. Russell for Gordon Russell, Ltd., 1938. Council of Industrial Design, London.



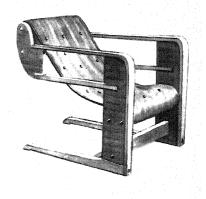
Blockprinted Wallhanging by Jacob Asanger for R. Rosenthal, 1924. Century Theatre Program, New York.



Blockprint by Ruth Reeves for W. & J. Sloane, 1930. American Federation of Art Catalogue.



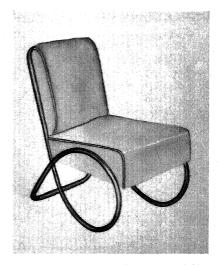
ftsman Chair, about 1906. The Craftsman by Gustav Stickley, 1909.



Bentlock Chair by Kem Weber, 1931. Creative Art, New York.



al Chair by Wolfgang Hoffmann for vell Co., 1935. Creative Design, New York.



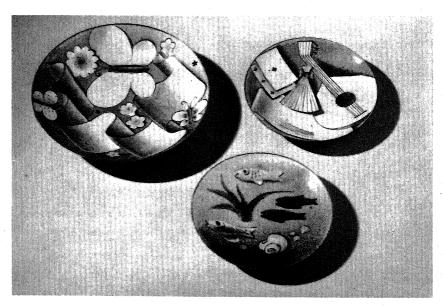
Metal Chair by Raymond Loewey and Lee Simonson, 1934. Creative Design, New York.



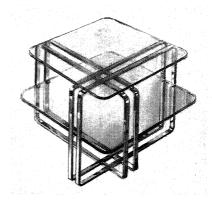
Pottery Vase by Rookwood Pottery, 1906. Studio.



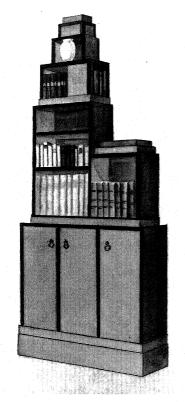
Vase by Tiffany, 1901. Kunst und Kunsthandwerk, Vienna.



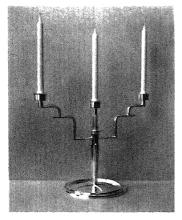
Enamels by Mizi Otten, 1930's.



Metal and Glass Table by Robert Locher for John Wanamaker, 1931.



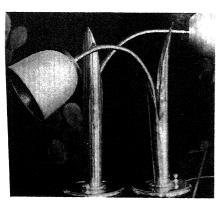
Bookcase by Paul T. Frankl, 1925. From New Dimensions by Paul T. Frankl.



Silver Candelabra by Muller-Munk, 1933.



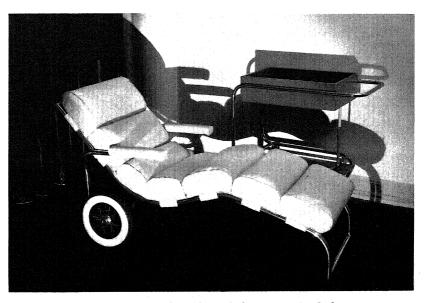
Aluminum and Lucite Chair by Walter Dorwin Teague, 1930.



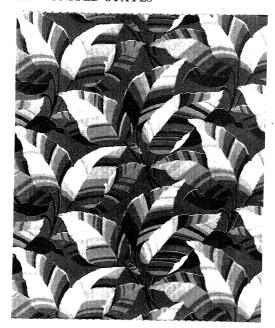
Metal Lamps by Egmont Arens, 1930's.



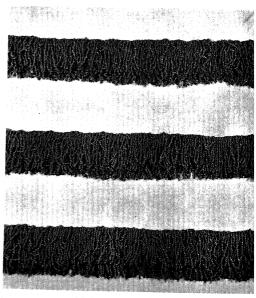
Desk and Chair by Edward Wormley for Dunbar Furniture Co., 1933.



Aluminum Chaiselongue by Gilbert Rhode for Troy Sunshade, 1930.



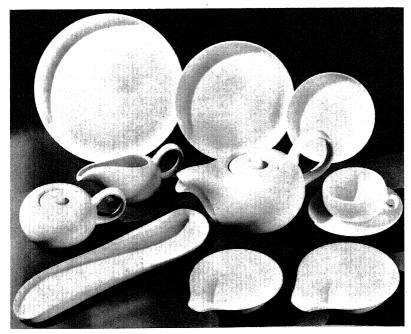
Printed Fabric by Goodall, 1939.



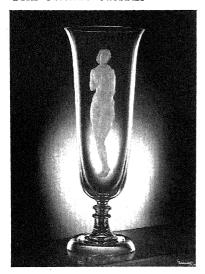
Woven Fabric by Dorothy Liebes for Goodall, 1938.



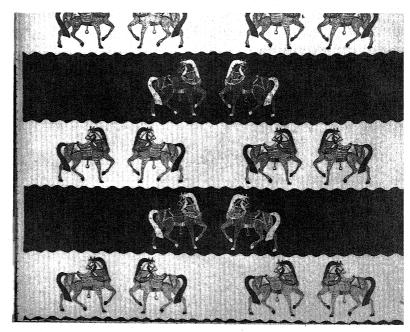
Desk Lamp by Walter von Nessen, 1936, from own workshop.



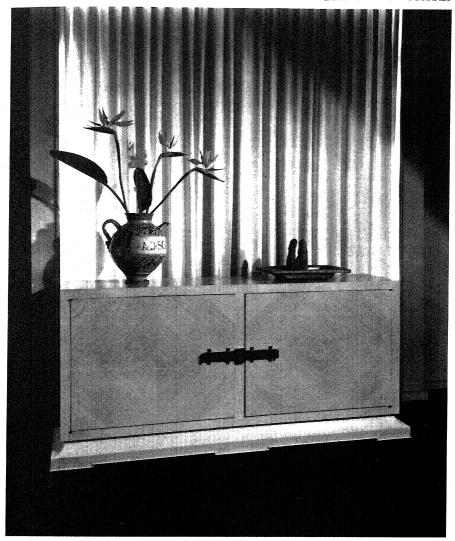
Dinnerware by Russel Wright for Steubenville Pottery Co., 1938.



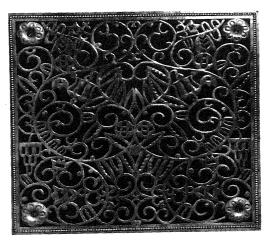
Vase designed by Moise Kiesling for Steuben Glass Co., 1939.



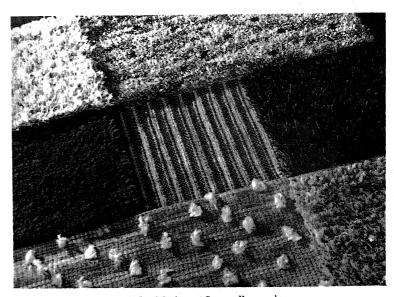
Printed Fabric by Marguerita Mergentime for Goodall, 1939.



Cabinet by Tommi Parzinger for Charak Furniture Co., 1939.



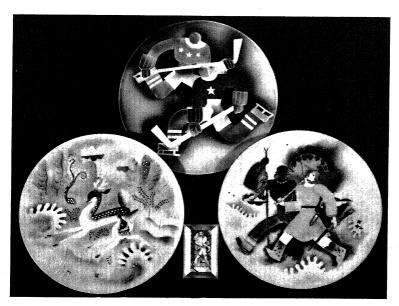
Brass Grille by Winold Reiss, 1928.



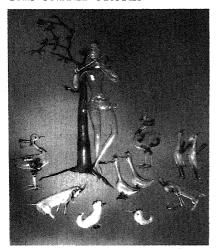
Rugs by Marianne Strengell, 1930's.



Metal Cigar Box with Favril Glass by Tiffany, about 1900.



Enamels by Russell Barnett Aitken, 1930's.



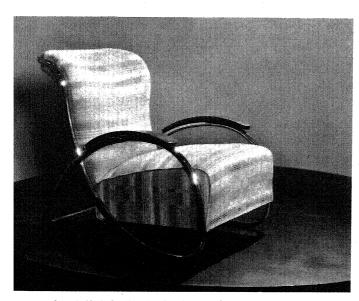
Blown Glass Objects by Marianna von Allesch, 1934.



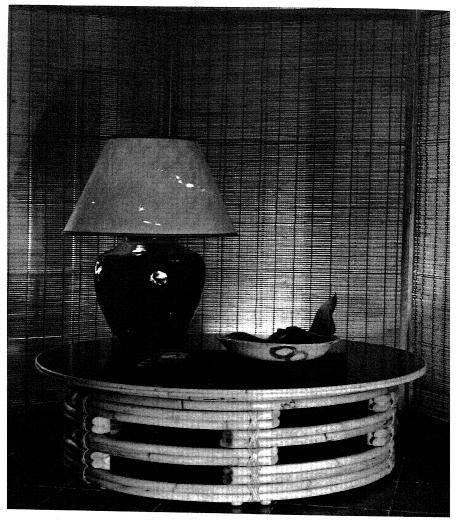
Pottery Objects by Edwin and Mary Scheier, 1930's.



Metal Table Lamp by Kurt Versen, 1933.



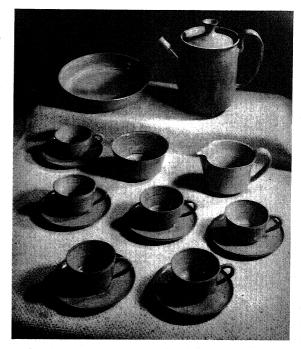
Metal Chair by Kem Weber for Lloyd Mfg. Co., 1930's.



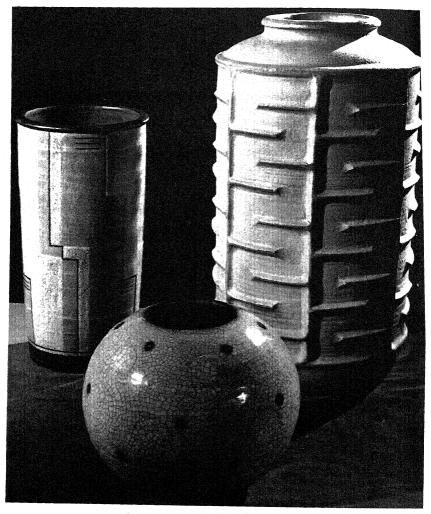
Rattan Table by Paul T. Frankl, 1937.



Ceramic (Ichabod Crane) by Waylande Gregory, 1930's.



Stoneware Coffee Set by Margaret Wildenhain, 1939.



Stoneware Vases by Maija Grotell, 1940.

decade passed before bold designs and vivid colors were accepted for clothing or interiors.

The first textiles made by Paul Rodier were dress and coat woolens of unusual texture and design interest. Later he entered the decorative field, becoming world famous for abstract and geometrical designs made for draperies and curtains. He obtained his inspiration from ancient and primitive sources and relied for his effects on weave and tones. As a rule, Rodier used but one color. Wool, cotton, jute and some linen, alone or in combinations went into his fabrics and, since he had a masterly knowledge of the possibilities of the loom, he obtained highly varied and dramatic effects. All Rodier textiles were hand woven, by artisans who worked in their homes in Picardy. They executed about 5,000 designs a year for the firm.

With the First World War, the development in applied art came to a halt in France as everywhere else in Europe. After the peace, the country rapidly recovered and artists and manufacturers, assisted by the government, set out to attain leadership. Heretofore, most of the objects made in the contemporary style had been only for the wealthy class. Good furniture was custom made, and even the manufactured pieces were costly. Textiles woven in small quantities had to be high priced. Only a few copies were made of ceramics, china and silver. During the 1920's, the department stores changed this. They established modern art departments, headed by capable artists, and modern art became industrialized. Large scale mass production, however, as in Germany and Sweden, did not exist.

Some of the department store shops became internationally known. Primavera, at the Printemps, managed by Mme. Chauchet-Guillère, became a favorite shopping place with American dealers and tourists. At La Maîtrise, of the Galeries Lafayette, Maurice Dufrêne was the director; Pomone, of the

Bon Marché, was led by René Prou; the Studium of the Louvre, by Kohlmann and Matet; and Athelia at Trois Quartiers by Maurice Bloch. Collaboration between artist and industrialist having now improved, it was customary for an object sold in these departments to carry the names of both the designer and the manufacturer or distributor.

Modernization even took place at the tradition-bound Gobelin, Aubusson and Beauvais factories, for which Charles Dufresne, Robert Bonfils, Gustave-Louis Jaulmes, Raoul Dufy and Maurice Iaquoy were making designs depicting contemporary scenes and activities. The painter Jean Lurcat made some of the first modern rugs. Maurice Dufrêne, Paul Follot, Sue et Mare, Ruhlmann, Nathan and Coudyser, and Martine, all designed the new, deep-pile floor coverings. Da Silva Bruhns utilized cubistic patterns and the red, brown and black of African art in his rugs.

The French government's master stroke in the promotion of the modern style occurred in 1925, when the International Exhibition of Modern Decorative and Industrial Art made newspaper headlines for months all over the world. Although much of the work from all countries was mediocre and even bad, the exhibition was a tremendous stimulus to the still struggling movement. Soon afterward, the style in every country went into the "functional" phase. France rose to a position of leadership over Vienna and Germany, especially in luxurious fabrics and furniture.

Viewed from a perspective of more than twenty years, the faults existing in many of the exhibited objects were seen as the same as had always bedeviled the style. The straining for originality, and the resulting eccentric shapes and ornament left thousands of visitors content to live with their old possessions. Yet in spite of this, modern had now arrived.

During the period that followed, the division of opinion concerning ornament greatly affected the movement. Because

French decorative art has been rich in decoration for centuries, it is difficult for them to eliminate it. Besides, many modernists believe that ornament is not necessarily a violation of the contemporary style. For many years, critics of the plain surfaces and of glass and steel furniture spoke contemptuously of the "clinical style," the "steamer style" and "shocking nudism," while functionalists referred to decoration as "tattooing." Their prayer was, "Creator, who made us nude, behold Thy work condemned! If we understand rightly, it is the garment that constitutes beauty."

In 1933, Art et décoration published a questionnaire on the "Evolution or Extinction of Ornament." The replies to it brought out facts which indicate that functionalism would probably continue in this materialistic era. Lack of time to create good ornament, the need for immediate financial return, and the lack of craftsmen were the reasons given for simplification. Some artists pointed out, however, that unornamented areas must give the impression of fullness, not of poverty, or the effect is worse than overdecoration. Another opinion was that ornament should never have been "suppressed," but modernized and "based on the life of the era."

It was the *ensembliers*, that is, the designer-decorators, who brought such warmth and harmony into the new rooms that functionalism was accepted by people who hitherto had regarded it as harsh and alien. (The term *ensemblier* came into use about 1910, to describe both the architects who are also decorators and the decorators who design plans as well.) Some of the best firms used curved lines, giving to their work a feeling of traditional French elegance and grace. Yet the absence of a truly Gallic spirit in modern prevented it from displacing the earlier periods entirely as, for example, in Sweden, where simplicity expresses the people's nature and mode of life.

The printing press, easy travel, shipping facilities and

machine processes made modern so similar throughout Europe that it was called the International Style. The Viennese and German influences were both strong in France. Le Corbusier visited the Bauhaus for a firsthand acquaintance with the methods of Gropius, the school's director. Adolph Loos of Vienna, stayed in Paris for some time before the First World War. His functional designs and the pronouncement that ornament attracts only the immature and the primitive in man made an impression, perhaps a deeper one than at home. For severely plain surfaces are as contrary to the Viennese temperament as they are to the Parisian. A very strong influence was the native art of the French Colonies and the classic Chinese.

Between 1925 and the Second World War, the various promotional societies did excellent work. When the old Société des Artistes Décorateurs, which included the pioneers in its membership, became stagnant, the younger artists founded the Union des Artistes Modernes, which held its first exhibition in 1930. The societies became powerful groups, with men heading their committees who were also important in the ministries. Good exhibition space was arranged for, socially important people attended the openings, receptions and dinners, and the co-operation of the manufacturers was secured.

Thousands of homes were redesigned during the thirties. Modern country houses were constructed in the Paris suburbs and on the Riviera. Charles Siclis, who built the Theatre Pigalle, second modern theater in Paris, specialized in the transformation of cafés, offices and places of amusement. Shop windows displayed merchandise against simple, dramatizing backgrounds with the aid of new lighting arrangements. Steamships, hotels, airplanes, were modernized. The magazines, Architecture et industrie, Art et industrie, Art et décoration, French Vogue and Femina reflected the changes made in type design, illustration and format.

As another war halted progress again there were about twelve ensembliers in Paris whose work set the high standard for the luxurious contemporary French style. Among them were Pierre Chareau; Compagnie des Art Francais; DIM; Dominique; Djo-Bourgeois; Jean Dunand; André Groult; René Herbst; Leon Jallot; Francis Jourdain; Jean Michel-Frank; and Ruhlmann. At this writing, most of them are again at work in the same studios. The most significant change in the postwar designs has been that once more curve and ornament are creeping in. Whether this is a temporary reaction, or the beginning of a permanent development, it is too early to say.

AUSTRIA

NOT THIS generation nor many to come, perhaps, will know Vienna in the mood which gave it fame. Let us glance, therefore, for a moment at the imperial city when it was the cultural center of a great part of western Europe.

was the cultural center of a great part of western Europe.

Life there was uniquely satisfying. The center of it was the court whose gaiety, culture and manners set the standard for the empire. Franz Josef, a man of simple tastes and iron self-discipline, slept on an army cot, but around him the capital was luxurious and extravagant. In the shady Prater the fashionable world rode or drove on fine afternoons, the elegant four-in-hands guided by Hungarian coachmen who had learned to handle fiery horses on their native puszta.

The city pulsed with music. In the simplest home, parents and children played instruments. Mozart, Beethoven, Schubert and Brahms had lived and worked in the houses one saw each day. Their compositions could be heard at prices within reach of the poor. The variety of national classical music, folk songs, and melodious light opera hits was endless.

Vienna had more parks and more cafés than any other city in Europe. Artists, musicians, actors and business men met daily at their favorite table to spend hours in leisurely gossip.

Existence without this pleasure was unthinkable, even to the poorest student.

The applied art created in this unhurried city expressed culture and easy humor. It possessed the combination of superficial ornament, sometimes overornamentation, and good workmanship; of barbaric color within restrained areas. There was fantasy and the absence of harshness from simple lines. The word to describe it best has often been applied to the people there. It is charm.

At the time of Morris, the Austro-Hungarian empire ruled Bohemia, Moravia, Croatia, Dalmatia, Herzegovina, Bosnia, Trieste and the Galician part of Poland. From these countries, and from others, temperaments and talents were attracted to the capital. Austrian art was the art of Vienna.

The industrial age affected the empire as it did the rest of Europe. To save the crafts from extinction, a few architects and artists were working for a renaissance in the applied arts. There had been no authentic style in Austria since the Empire inspired Biedermaier, and this had received its derogatory name around 1880 when the newly prosperous element found the simple, solid lines too middle class. For Biedermaier was a character whose adventures appeared in the Munich comic magazine, Fliegende Blätter.

The first step toward design reform was taken when architects began to speak out against the mixture of period styles. New areas were to be developed in the city and, with some reluctant government encouragement, progressives such as Hansen, Ferstel, and van der Nüll designed the first buildings on the Ring in a pure style.

Observing England, Austria saw that the South Kensington Museum and school, established according to Gottfried Semper's plan, was helping to improve design there (see England). The Grand Duke Rainer, therefore, commissioned Rudolf von Eitelberger to plan a similar institution for

Vienna, the first one of its kind on the continent. The following year, the Kaiserliche und Königliche Museum für Kunst und Industrie held its first exhibition. Every one of the two thousand objects shown had been borrowed. To create a good collection, correspondence was conducted by Storck, the director, with artists, scholars, economists and governments throughout the world. In 1867, a school of applied art was added, to develop into one of the best in Europe.

The new school was the first of the Imperial Kunstgewerbe-schulen, although schools for arts and crafts instruction had existed since the eighteenth century. Now, new institutions similar to the model one in the capital were established at Innsbruck, Salzburg and other Austrian cities, as well as in large centers such as Prague and Krakow in the crown lands. Graduates and officials from Vienna became the teachers and directors, raising standards wherever they went. All of the schools were under the Ministry of Culture and Education. Tuition was low and, if the student could produce evidence of poverty, he was admitted without charge. Entrance examinations were strict. If, at the end of the first year, a student did not show sufficient progress, he was dismissed. Only one thing was lacking in the instruction—the training of the pupil's imagination.

During the 1870's, Germany and France were already showing the influence of the British movement. But during the nineties, the Austrians were still teaching by the copying method; graduates were meticulously reproducing period designs, especially Renaissance. When, in 1898, Gebrüder Rosenthal, a textile firm in Voralberg, wanted to buy a modern design they had to give the order to an English girl whose work had won all the prizes in a competition held by the firm.

Unexpectedly, the shock that was needed to give the revival a serious start was administered. Hofrat Arthur von Scala, director of the Oriental Museum, announced an exhibition of eighteenth century English furniture. It was an action taken in the hope of breaking the everlasting chain of French and Italian style revivals. Thus, for the first time, the general public of Vienna saw the work of Chippendale, Hepplewhite and Sheraton. Scala's show was a sensation, and resulted in his appointment to the directorship of the Imperial Museum for Art and Industry. From then on, the work of Morris, Crane, Voysey and the others was also exhibited.

In Vienna the modern movement was begun by architects, of whom the greatest leader at the time was Otto Wagner (born 1841). Most of his plans were for public buildings; they were original, with exteriors that were the result of interior functional planning. Wagner was a professor at the Academy and, when his book, *Moderne Architektur*, aroused strong opposition among the conservatives, the younger architects rallied to his defense. His fame as a designer and teacher was widespread, and at least two of his pupils attained international stature, Josef Hoffmann and Josef M. Olbrich. But the master received little public recognition. Some of his best plans, for government compositions, were never used. He died in 1918.

Adolf Loos prepared the way for that phase of functionalism which developed after the First World War. He studied architecture in Dresden and then in the United States, and the practical methods of American industry as well as the work of Frank Lloyd Wright made him a lifelong advocate of mass production from models without ornament. In 1900 he expressed some of his new ideas in the Café Museum, which he planned like an efficient machine, minus the customary panels and carving then used in most Viennese restaurants. Mark Twain, attending the opening of the Café Museum, could see nothing new about the plain interior. "It's American," he said. Loos employed the flat roof and the horizontal line in his houses, and acknowledged only two guiding forces in de-

sign: architecture and industry. Some of the earliest modern shops in Vienna were created by him. When he visited Paris during the 1920's his influence made itself felt there in building and interior design.

In 1898, the great revolt of the painters, sculptors and architects, known as the Secession, divided the Austrian artists into two bitterly opposed factions, following a similar movement that had taken place in Munich. The famous Sezessions Haus in Vienna, designed by Olbrich, was one of the first examples of modern craft-conscious construction in the city. Very soon the designers of applied art also joined the Secession. Arrangements were immediately made for modern exhibitions, the first coming from England and France. And largely through these exhibitions, British painting, architecture and design became such an important influence.

At this point Scala, whose progressive action had halted the Renaissance revival, took a stand on the side of conservatism. But, after heated quarrels between the rebels and the academicians, he was obliged to accept the forced resignation of Storck, who had been the Museum School's director for thirty years. Scala also had to approve the appointment of Baron Felician von Myrbach in 1899, with Josef Hoffmann, Alfred Roller and Koloman Moser from the modern camp as professors.

Myrbach's mind was open to new ideas and untried methods. Although he had received little art instruction, he was so competent in drawing that, as an army officer, he had been appointed teacher at the Cadet School. After resigning from the army he went to Paris, where he became a celebrated book illustrator. Returning to Vienna in 1897, he joined the Secessionists, and two years later headed all the Austrian arts and crafts schools.

The courses offered by the famous Imperial Museum School of Vienna increased until they included architecture, sculpture, painting, modern lace making, embroidery, ceramics enameling, weaving, graphic art, jewelry and toys, as well as the design of textiles, wallpapers, furniture and interior decoration. Before a student could be admitted to the advanced Hoffmann and Moser classes, he had to learn to draw live plants and animals from close study. From this naturalistic work, he progressed to design proper. Especially noted professors, all of them working artists themselves, were Strasser, C. O. Czeschka, Hrdlicka, Oskar Strnad, Franz Cizek, Michael Powolny, Anton Hanak and Rudolf von Larish. As in Germany, the best architects, designers and craftsmen were drawn into the schools. They received good salaries, were assured of a pension and could obtain private work which they were permitted to execute in the school workshops with the help of the best students. The latter thus earned enough for their tuition. The title of professor gave the holder both prestige and security.

Modern in 1899 was the Jugendstil. Some of the good designers, with their light Viennese touch, could handle the style with great success in silver and textiles. They were also making a good deal of squarish furniture, with British influence, which was embellished with flat, playful curves. But very soon the manufacturers were turning out merchandise covered with ill-considered flowing lines. As more and more cheap wares crowded the shop windows, good artists stopped working in the style. And the Jugendstil was dead.

Although the contemporary style and advanced teaching methods had been adopted in the schools, training in crafts-manship was still based largely on copying. The pupil was taught by first reproducing some authentic period object with great exactitude. The high standard of workmanship thus attained was shown at the World Exhibition in Paris in 1900, where the Austrian empire had been allotted ten rooms by Count Latour, director of the exhibition. Five of the rooms

were copies of interiors dating from the thirteenth century to the eighteenth. The work of Fachschulen (craft schools) pupils in woodworking, metal technique, industrial pottery and ceramics in a number of cities was represented in the tiles, furniture, glass, wood paneling, polychrome and locks made for the exhibition.

To everyone who was familiar with applied art during the first third of the twentieth century, the name Wiener Werkstätte was synonymous with Austrian work. Most artist craftsmen with unusual ability belonged to that remarkable organization, founded in 1903 by Josef Hoffmann and Koloman Moser, with the financial help of Fritz Waerndorfer. It started as a branch of the Secession, but became independent in 1905. A program was then worked out to stimulate cooperation between manufacturers and artists, and to increase the purchase of decorative art objects.

The Wiener Werkstätte had not only its own workshops where designers and craftsmen were employed, but a good sales organization. It became a social center as well, for the young artists, musicians and writers of the city. They established their own cabaret, "Die Fledermaus" (The Bat), in a basement and covered the walls with beautifully designed tiles. For years, the hallmark WW was looked forward to with interest at every international exhibition of applied art. Every artist could also put his own mark on whatever he made. Although the Wiener Werkstätte was no financial success, the members' products were bought all over Europe, and it influenced designers in every country. In the beginning, all Wiener Werkstätte products were only originals; no copies were made.

Besides training and organization, other factors contributed to the leadership which Vienna attained in the modern style. Artists from the crown lands gave richness and color to the designs they made, influenced by the peasant embroideries and painting of their native lands. A high point in the city's artist life came when, under Gustav Mahler's directorship, the royal opera gave support to modern by ordering settings designed by Alfred Roller.

The exhibitions showed how modernism was quickly developing after a delayed beginning. In 1902, during the Turin exhibition, Austrian critics were expressing their disappointment at the stagnation that was already apparent in the English Arts and Crafts Society. In 1908, the Austrian imperial museum, then fifty years old, held a summer exhibition which showed a Viennese modern style that had been largely freed of the earlier eccentricities. Because the Deutsche Werkbund, the German organization of artists and manufacturers, was also holding its annual meeting in the capital, every effort had been made to prove the quality of Austrian design. Landscaped gardens around the specially constructed buildings, summer cottages and cafés were then modern novelties of the elaborate exhibition.

Among the noteworthy interiors were a dining room with simply carved and highly polished ebony furniture, inlaid with mother-of-pearl, designed by Hoffmann; a boudoir with white lacquer furniture upholstered in blue satin, by Hans Prutscher. There were modern mosaics, glass, metal work, leather work, textiles and ceramics. The British influence had noticeably faded, but not the Eastern. The Austrian stamp was given to the work through the use of some peasant motifs, brilliant colors and a characteristic lightness in form and ornament.

But all modern exhibitions were not held at the Imperial Museum, or at the capital. As early as 1902, the Nordböhmische Gewerbemuseum, in the small Bohemian town of Reichenberg, held a ceramic exhibition of 1,000 objects. Bing had sent articles by Chaplet, Delaherche, Carriès and de Feure. There were china and porcelains from the Hague, Amsterdam

and Utrecht. Hungary was represented with copper luster faïence, and there was a large display of German Jugendstil.

By 1911, there was still some use of inlay in furniture, the favorite woods being highly polished palisander, tuja and ebony. Lacquer was used far less than in Paris. A very simple article which received a good deal of fresh attention was the old Thonet plywood chair which had become important because it embodied the principle of design for use. The firm of Kohn was now making a similar product. Textiles and wall-papers were light in color, with stylized designs. Interesting were the bright-colored, flowered tablecloths made for the Viennese beer gardens. They were also imported by France and the United States. Costly painted fabrics and some appliquéd with glass and metal, for formal gowns, were being made.

At the Imperial Museum's winter exhibition that year there could be seen boxes and small chests of hammered silver or copper, and others of wood covered with colorful embroidery. Engraving, enamel work and inlay of glass and mother-of-pearl were frequently used for decorative objects. Naïve toys and marionettes were made by women. Like Lalique of France, the Viennese jewelry designers made beautiful, rather than costly pieces. Characteristically Austrian was the hammered, shaped, oxidized and polished silver costume jewelry, some with a peasant influence. The stones were turquoise, amethyst, lapis, agate, carnelian, malachite and aquamarine, while enamel was used for geometric, floral and animal designs. Amber, coral and even cheap glass beads were combined with gold, silver and silk cords to make bracelets. Handbags were worked with gold thread, pearls and colored embroidery. Vienna, noted for fine leather, was now making bookbindings more luxurious than anything produced for generations, while many hand-block linens and batiks were used for less expensive covers.

There was also an exhibition of contemporary church art in 1911, and another devoted to applied art designed and executed by women. In one month 32,394 people visited the latter.

The leading art magazine was Kunst und Kunsthandwerk, the official organ of the Imperial Museum. Interest in the graphic arts had increased tremendously through the Morris influence, and this and other publications were introducing beautiful new type faces, handmade initials and very fine papers. Color reproduction developed into a craft for which Vienna became famous throughout the world.

Kunst und Kunsthandwerk did more than review the progress of contemporary applied art. To promote it further, it also frankly criticized the "growing habit of buying antiques" by people who wished to appear cultured. And it condemned the purchase of "handmade laces, ribbons, caps and other articles of adornment from peasant women at prices far below their value, instead of encouraging living artists and advancing the culture of the great new era."

While a number of sculptors and painters joined the applied art movement, in Vienna the architects remained the most important influence in almost every branch of design. And of the numerous leaders, from the founding of the Wiener Werkstätte until today, the most widely known of them has been Josef Hoffmann.

Born in 1870, in the village of Pirnitz, Hoffmann came to the capital as a child. Very early he absorbed the doctrine of Ruskin and Morris and, as a pupil of Otto Wagner, began to apply it. From his peasant forebears, he had inherited a love of folk art which was reflected in all his decorative work. Possessing the rare combination of exceptional talent, energy and modesty, he soon became one of the central figures in the capital's art world. In his twenties, when he was already known abroad, he organized the group, among them Olbrich,

Moser and Gustav Klimt, who afterward formed the Secession. Soon thereafter, he became professor on the faculty of the Imperial Museum School. In 1913 he organized the Austrian Werkbund, modeled after the German society of the same name; and he founded the group known as Die Kunstschau. However, his greatest work of leadership was the direction of the Wiener Werkstätte, which he not only revived after the empire's defeat and dismemberment after the First World War, but brought to still greater fame. Soon after the Second World War, his articles, calling on youth to study applied art, began to appear.

Hoffmann's designs have a characteristic lightness, sensitiveness and restraint. His early architectural work revealed the English influence, but this soon disappeared. Some of his residences were built in Berlin, East Prussia, Croatia, Bohemia and Belgium, as well as in Austria. He also designed exhibition halls for foreign governments. When Vienna embarked on its great housing plan for 60,000 workingmen's apartments during the 1920's, Hoffmann designed several large-area, low-cost units.

Emotionally, Hoffmann is a typical Viennese. A story is told about him which illustrates his unconcern for material benefits when they involve discomfort. Kemal Pasha, dictator of Turkey, was contemplating the erection of several government buildings. Both Holzmeister, also an Austrian architect, and Josef Hoffmann entered the competition. But when the ruler requested that they come to Ankara to discuss their ideas, Hoffmann said he would rather stay home. Holzmeister made the trip and erected the buildings.

The artist's most sensational architectural achievement was the Stoclet house in Brussels, which he planned in 1908. This is generally considered one of the most perfect examples of modern residential planning anywhere. The owner, a banker, had a magnificent collection of Eastern art objects. With no limitation placed on cost of materials, Hoffmann planned the house to express his client. Using rectangular, dominating lines, setbacks, sculpture, and rare and beautiful marbles, he created an imposing yet quiet setting for a wealthy man with Eastern tastes. A wall of the yellow marble dining room was inlaid with exotic mosaic designs by Gustav Klimt.

In decoration, Hoffmann was influenced by the Japanese, Egyptian, Assyrian and Babylonian. The first of these is strongly reflected in his textiles, especially the black and white compositions. He also designed a great deal of furniture, glass, ceramics, leather articles, and beautiful gold and silver decorative and tableware.

In 1913, the Wiener Werkstätte fabrics were brought to the United States; but American women, unaccustomed to modern design, rejected them as too unconventional. In 1925, the year of the Paris exhibition, a selection of all of its products was brought to New York, under the management of Joseph Urban, the distinguished Viennese architect. That venture also failed. Soon thereafter, a number of Wiener Werkstätte artists made the United States their home. (See United States.) The Wiener Werkstätte finally failed during the early thirties because of Vienna's poverty, there being not even sufficient funds to pay for representation at the international exhibitions.

One of the greatest decorative painters in Europe during the early part of the twentieth century was Gustav Klimt (born 1862, died 1918). Starting as a designer of theatrical settings, progressing to murals for theaters and the Imperial Museum, Klimt acquired such individuality of expression that his influence was long felt in applied art. Controversy about his work raged for years for he was regarded either as a modern genius or a decadent and shocking poseur. Klimt responded to many influences; the primitive, Greek, Pre-Raphaelite, Japanese, Aubrey Beardsley, Toorop of Belgium

and the mosaics of Byzantium. His color was barbaric, his patterns intricate. He painted stylized, sinful-looking women against gold, silver, blue, green and red.

In 1898, Klimt was made an honorary member of the London Committee for the selection of works of art for annual international exhibition, of which Whistler was chairman. During the same year, the Vienna magazine Ver Sacrum devoted an entire issue to Klimt's work. Ver Sacrum was a new and luxurious publication devoted to all the arts. In 1903, Klimt painted the murals, Philosophy and Medicine, for the festival hall of the University of Vienna. The consternation and controversy they caused ultimately led the artist to withdraw them. While seventy professors, the press and the majority of the public demanded the rejection of the works, Klimt enthusiasts placed a laurel wreath before them.

Klimt's frieze for the Stoclet dining room represented a dancer, and a pair of lovers seated under a tree. The compositions were executed in mosaic, majolica, hammered metal, enamel, opals, coral and other stones. This frieze was the high point of the artist's design work. The Wiener Werkstätte was influenced by his mosaics, as could be seen in their tiles and textiles. During the last period of Klimt's life, he worked from nature entirely, his interest having passed to landscapes and portraits.

Austria organized its own Werkbund in 1913, and in 1914 the society held a large exhibition in Cologne in co-operation with the German group. Until the end of the First World War, all creative work was at a complete standstill, but almost as soon as hostilities ceased the Viennese began to design with a new feverish intensity.

Although Austria, now small and impoverished, could not absorb the products her artists made, it was during this trying period that contemporary design attained its highest development there. The glass produced by the Lobmyer factory was world famous. The firm of Welz made luxurious cabinets and beautiful gilded frames; Soulak's furniture was celebrated, as were the textiles of Backhausen und Söhne and the ceramics of the Wiener Porzellan Manufaktur Augarten. The little town of Gmunden was a center of Austria's ceramic industry. Exhibitions of every kind of production were sent to Cologne in 1928 and to Brussels during the early thirties. A special biannual exhibition was organized by the Chamber of Commerce at the Wiener Messe (Fair). The women artists organized and held exhibitions for the purpose of promoting their own work. One of the most competent promoters for Austrian applied art was Hofrat Dr. Adolf Vetter, chief of the Staatliches Gewerbeförderungsamt.

Newcomers in the Wiener Werkstätte were young artists whose work had a trend toward fantasy, crude folk art, and the Rococo of a happier era. The theories of the abstractionist and primitive schools of painting influenced the forms and materials they used. Instead of using porcelain, some designers made flower pots, ash trays and bowls out of coarse red clay, to which they added a crude glaze. The fad for playful design spread over into other countries. Textiles, wallpapers, laces and glass had stylized patterns, the plant and flower forms usually having a geometric feeling. Characteristic of the escapism of the day were the small simplified nudes by Vally Wieselthier, which she decorated with a blossom on a knee, instep, elbow or throat; and the delicate objects made by other women designers, among them Herta Bucher, Susi Singer and Dina Kuhn.

The most gifted artist who worked in the playful style was Dagobert Peche. Born in the province of Salzburg in 1887, he grew up among the colorful peasant festivals and native art of the region. As a student of architecture, he won the Rome prize and several others, but decided to devote himself to applied art. In 1911, he spent six months in Paris on his

honeymoon, where he first studied Renaissance and Gothic and then became fascinated with Louis XV furniture design. Out of these influences he developed a highly individual style. The characteristic of Peche's work was grace in combination with humor and an inexhaustible imagination. In 1910, in England, he came under the influence of Aubrey Beardsley, and began to work for striking effects in black and white.

Peche's wallpapers and textiles are covered with unrealistic flowers and vines. The human figure is treated as ornament, branches and blossoms sprouting from shoulders and feet, or parts of the body covered with fanciful design. From an elephant's back arises an incredible plant, whose delicate blossoms are distantly related to tulips and daisies, with tendrils ending in tassels. The Baroque architecture of Salzburg, where he grew up, was also a strong influence in his work.

In 1915, Josef Hoffmann invited Peche to take part in the management of the Wiener Werkstätte. A tireless worker, he learned within a comparatively short time to execute his designs for laces, embroideries, textiles, jewelry and furniture. When the Werkstätte opened a Swiss branch in Zurich, Peche was chosen to be manager. He made the shop one of the most beautiful in Europe. At the end of the war it had to be closed and Peche came home to a city that was acutely short of housing facilities. The house assigned to him by the municipality had beams that were partly rotted away because of dampness. There Peche contracted tuberculosis.

In spite of this he continued for several years to create interiors and other designs which were bringing him international recognition. Toward the end he worked from his bed. From New York, Joseph Urban sent funds to the Wiener Werkstätte for a small suburban villa for Peche, but shortly after he moved into it, in 1923, he died.

During the twenties, a new trend took possession of applied art. This was the horizontal line. It was used on everything

from metal bands on walls to cooking utensils. The emphasis on the horizontal can be traced to attacks made years before against rooms with "impractical" and "palatial" high ceilings. Architects then adopted the flat roof, doing away with the attic, designed low rooms, and introduced broad windows. As living space continued to shrink, emphasis on breadth to create an illusion of spaciousness was an inevitable development. Cubist and expressionist painting influenced textiles and wallpaper designs for several seasons, when geometric forms and shaded areas in light gay colors appeared.

Economic conditions and the resulting limited market made it impossible for the artists to make a living. Occasionally, therefore, compromises were made to commercial demand, thus endangering the standard. Another problem of the designers was the tendency of foreign manufacturers to steal designs. In Austria a strict law existed against piracy, and some European countries punished their own nationals for infringing on foreign designs. When Karl Hagenauer, of Vienna, sued a Budapest manufacturer for copying his design, he not only won his case in a Hungarian court, but the manufacturer was obliged to give up his business.

Much illegal copying was done for the American trade. An object would be bought to serve as a model and quickly sent to Czechoslovakia for cheap reproduction. Ironically, such copies were occasionally recopied by the Japanese. An example of the piracy procedure occurred in New York. An American importer purchased an exclusive ceramic of a colt in Vienna, ordering only a very small quantity manufactured for his protection. The last piece had hardly been sold before a crude imitation appeared on the counters of a chain store for ten cents. One of the expensive pieces had been bought in the New York shop, sent to Japan and immediately imitated.

During the postwar years the charges "superficiality" and

"luxuriousness" were often made against Austrian applied art, especially by the functionalists. But the criticism brought about very little change toward plainness. The Viennese, like the French, cannot wholeheartedly accept a style in which the nonessential is completely omitted. Sooner or later the urge to decorate finds an outlet.

One of the most delightful courses of study after the war was introduced by Professor Cizek, originally for the purpose of giving the undernourished children an interest outside their material needs. He conducted Saturday classes for youngsters from six to fourteen and, to develop the imagination, asked them to draw or paint their ideas of cold weather, snow, music and other subjects. The naïve work done by children who had never been taught to draw started a movement which spread to many countries. Cizek's classes were so fascinating that adults and experienced artists asked permission to take the course.

The leading artist in the field of lettering and type design was Professor von Larish. He taught heraldic design, and originated a large number of types and lettering for various kinds of advertised products, publications and books. Almost everyone who worked in metals had been the pupil of Professor Hanack, while Professor Eduard Wimmer was widely known for his textile and fashion designs and had a great many American pupils. All of these men continuously produced work of their own in addition to teaching. Other eminent instructors were Professors Max Fellerer, Klemens Holzmeister, Strnad, Karl Witzman, Paris von Gütersloh, Bertold Loeffler and Josef Frank. A number of women were outstanding artists in ceramics, glass, laces and embroideries.

Since the end of the Second World War numerous attempts have been made, not only in Vienna, but in many small villages, to build up Austrian applied art again. It is too soon to know with what degree of success this can be done.

GERMANY

OETHE was a great admirer of the Gothic style, but when neo-Gothic became the fashion in Germany, he said: "I cannot praise the man who fits out the rooms in which he lives with these strange, old-fashioned things. . . . Such a fashion is in contradiction to the age we live in. . . ."

Goethe would have been glad to see how quickly his country's artists cast off historic forms under the Morris influence, and how completely the design principles, formulated for the machine age, later entered into every type of German building, manufacturing and craft.

Historical events contributed to Germany's early leadership. Until 1870, the twenty-two small sovereignties and free cities were in ceaseless cultural and economic competition. After the German empire was established, the rivalry among the states continued, but now it furthered the progress of the nation. Furthermore, the Germans had much less wealth than the English. They had not the furniture tradition of the French, nor the nonchalance of the Viennese who felt the security of empire. All these factors helped to create a psychological state in which conservatism was less deeply rooted.

The first revolutionary note was struck by the architect Gottfried Semper (born 1803). In his famous book, Style in the Technical and Techtonic Arts, he explains the principles he had succeeded in establishing for the arts and crafts. He derived these from an analysis of historic examples which he regarded as standards of design, and which were drawn mainly from the Renaissance. He found that an object involves three factors—material, purpose and workmanship—and that it must be useful in order to be beautiful. To bring about reform, he recommended the establishment of local craft museums whose objects would be selected according to these principles. The South Kensington Museum in London was the first. (See England.)

At the turn of the century, when the Jugendstil was at its height, Henry Van de Velde was a vital force in directing independently working artists, scattered from Berlin to Munich, into a national movement, the aim of which was a style for the machine age. (See Art Nouveau.) Along with Semper and Van de Velde, the two Viennese modern architects Wagner and Loos were very important influences as well.

Until the First World War, Germany was the only country in which the modern principles were so consistently expressed in architecture that it could be said that a "style" existed. From the 1890's, when young rebels such as Olbrich, Peter Behrens and Messel became followers of Wagner, on through the Bauhaus period, German building was a strong influence in Europe and later on in the United States. On the other hand, the work of Frank Lloyd Wright was published in Germany in 1910. Loos admired him. Wright's influence among modernists in Germany, as in other European countries, was considerable.

No good furniture style was developed during the nineteenth century. About 1825, Biedermaier predominated. French and Italian were popular until the revival of Rococo, a style detested by Semper. Then the German Renaissance, Alt-Deutsch, was encouraged, but without success.

One of the art crafts assiduously fostered was porcelain manufacture. In addition to the early Meissen, Dresden and Nymphenburg works, numerous others were established by the princely or reigning families as an expression of prestige. As early as 1717, two of the best Meissen craftsmen were persuaded to establish the Wiener Porcellan Manufaktur. During the 1880's, simultaneously with Sèvres, the Berlin works were making experiments to reproduce the famous Chinese glaze. This Jean Carriès succeeded in doing during the nineties, in Paris.

With the increase in industrialization and social changes,

the demand for simpler, smaller houses grew. Everybody could now afford to own china, carpets, curtains, wallpaper and a good silk dress. But the factories were making papier-mâché "carving" and "bronze" lamps of zinc in period designs. "What had once delighted the world," wrote someone, "had become a hideous mask." It was inevitable that the prevailing ugliness should prepare the way for a new style to drive out what artists called the "corpse robbery" of imitation.

When the change appeared, hardly anyone noticed it. In contrast to the situation in England, where Morris directed the movement in London, and in France, where art was centered in Paris, German modernists were working in numerous cities. They followed Morris and, later, the Glasgow architects. The Asiatic influence was strong. At the Chicago World's Fair in 1893, German designers were deeply impressed by America's mass production. Tiffany glass, Copenhagen ceramics and French pottery, as well as the new schools of painting were all studied.

Among the isolated modern activities which aroused national and international attention were the Scherrebek school of weaving in Schleswig; the Jugendstil pewter made by the firm of Kayser in Berlin; pottery by Mutz in Altona, near Hamburg, as well as by Scharvogel in Munich and Therese Schmidt-Pecht in Constance; and the luster faïence of Max von Heider and Söhne in Schongau.

The incident that resulted in giving the new style a name occurred in 1894. The Munich painter, Otto Eckmann, burned his pictures and became a designer. He developed a style of his own with the flowing line, using stylized flames, flowing hair, curling smoke and plant forms for wallpapers, rugs, books, lamps and furniture. Two years later the Munich magazine Jugend was founded and Eckmann's original illustrations for it started the use of the term, Jugendstil, the

counterpart to Art Nouveau. Other young contributors who worked in the same style for *Jugend*, and who later became famous modernists, were Bruno Paul and Richard Riemerschmid.

In the peasant village of Worpswede, near Bremen, an artists' colony was founded in 1895. The local inspirations for the modernists were the simple architecture which had not changed since the Middle Ages and immense stretches of heather. Heinrich Vogeler, a painter there who had turned to making silverware, glass, lamps and designing interiors became especially noted for the motifs he created from plant forms in his garden. Rainer Maria Rilke wrote an article of lyrical prose about Vogeler's love of nature.

The first important encouragement for the modernists occurred in 1899, when the Grand Duke of Hesse, for whom Baillie-Scott had designed two rooms, invited Josef M. Olbrich of Vienna to build some houses for an artists' colony in Mathildenhöhe, near Darmstadt. The houses were simple, varied and free from period influence. The first exhibition of the colonists' work took place the following year, and from then on the hand-picked Darmstadt group began to influence European design. A great deal of the early work, however, was bad.

To raise the quality of design and workmanship, Germany began with the schools. Drawing classes for workers had been offered in the trade schools on Sundays and evenings. Nothing positive resulted from this because the demand for handmade articles steadily decreased. In 1877, an arts and crafts museum, after the Semper model (see England) with its own Kunstgewerbeschule, was established in Hamburg and, because of its success, others soon followed elsewhere. During the last decade of the century, leading architects, sculptors and painters, who had begun to work in applied art, saw that all copying must be stopped. Most of them were either instruc-

tors or school officials, so that original forms were quickly encouraged in the classrooms and workshops. About 1896, stylized plants and flowers predominated in decoration, and around 1903 design began to be viewed from the standpoint of the machine.

The two divisions of instruction were industrial design and the arts and crafts. The student was free to experiment with both. Shop courses included embroidery, carving, iron work, metal work, stained glass, goldsmith work, the graphic arts, stage settings, posters, gardens, cemeteries, books, factories and city planning, in addition to the design and execution of all types of furnishings and household objects. Mural painting, sculpture, wood and ivory carving, enameling, fashion, wallpaper, linoleum and textile design were taught under one roof by working artists. The subjects offered in a particular school varied, depending upon the availability of materials, and especially upon local industrial needs.

The following examples illustrate some of the local differences. In Flensburg, Schleswig-Holstein, the trade schools (Fachschulen) and the Kunstgewerbeschulen planned their courses to meet the demand of the local craft industry which was woodcarving and furniture making. Most of the students had already served as apprentices in the workshops when they entered the school. In Halle, a simple trade school developed into a model institution, with an international reputation for its ceramics and enamels. The school at Leipzig had a double advantage. Not only was the city an important industrial center, but the great Leipziger Messe (Fair) regularly brought the best industrial products of the country, and the rest of Europe as well, to the exhibitions. For the duration of the fair, an exhibit of applied and industrial art was held at the Grassi Museum, which also had a permanent exhibition of international arts and crafts work.

Some of the schools offered special courses such as watch-

making, nature study, plant and animal drawing, landscape painting, the history of art, industrial techniques and the study of materials, depending on local demands. Cost figuring, commercial law and civics were introduced in others. No time limit was set for the completion of an assigned project, the aim being quality.

In effect, the method was the master and apprentice system, with some differences in northern and southern Germany. In Prussia, the applied art schools and trade schools were united so as to keep design closely in touch with execution and workmanship. In the south the Austrian system prevailed; that is, craft schools were separate institutions, from which graduating pupils moved on to the Kunstgewerbeschulen.

All over Europe, instruction in applied and industrial art was influenced by the German and Austrian schools. Muthesius, one of the foremost authorities on art training for practical use, could truthfully say in review, "The Kunstgewerbeschulen were more than the reflection of the development; they were the bearers of the movement."

Almost equal in importance to good training was the promotion of sales for the artists' work. Standards had to be maintained also, and the rights of artists protected. Accordingly, in 1898, a workshop for the creation of quality articles was established in Dresden, which was planned to be a clearing house for art work as well. During the same year the Vereinigte Münchner Werkstätten für Kunst und Handwerk were founded. In 1907, these two groups united to become the Deutsche Werkstätten. In 1902, another Munich workshop which specialized in interior decoration was organized by the three architects, K. Bertsch, W. von Beckerath and A. Niemeyer.

The great Vereinigte Werkstätten, which had beautiful showrooms, were first financed by architects, designers and craftsmen, but later on private and state funds were made available for further development. There were four Vereinigte Werkstätten factories for furniture, located in Munich, Bremen, Berlin and Hamburg. The others had decorating, upholstery and repair departments, and a stock of model lighting fixtures, radiator covers, hardware, textiles, linoleum and carpets. They also produced toys and many small objects in ceramics, silver, gold and glass. Seven hundred people were employed by this association. They executed, in addition to their own designs, others bought from outside artists. They did not compromise on quality to reduce cost, a position which often worked to the Werkstätten's disadvantage at the beginning. Some manufacturers copied and changed the designs, making a profit at the expense of the artists. The design protection law, with severe penalties for theft, ended that.

A person who wished to build a house could consult with an architect, a decorator and a technician within the Vereinigte Werkstätten building, concerning design, construction, furnishing and landscaping. A house was regarded as an organism and was treated as a whole.

Some of the branches specialized in luxury, while others made inexpensive articles. The Munich organization, under Bruno Paul, designed distinguished interiors, using costly woods and expensive ornament. Dresden worked for the middle-class client of limited means; unstained woods and simple iron hardware were characteristic. Richard Riemerschmid's structural furniture with built-in and combination pieces gave solidity and dignity to their economical interiors. The Dresden branch also furnished many models to factories for machine-made furniture, the early designs showing a strong Biedermaier influence.

The Vereinigte Werkstätten were famous for their rugs, fabrics and wallpapers. They designed many tobacco shops, candy shops and windows for department and other stores.

By 1908, their annual sales turnover was above 3,000,000 marks.

The Deutsche Werkstätten had workshops and showrooms in twenty-two cities. The famous Dresden branch, at Hellerau, established by two workers with a capital of 4,000 marks in 1898, built a modern garden city overlooking the river. The central activity of the town was the large model furniture workshop. Baillie-Scott designed a summer villa for it. The cottages and administration buildings suggested the peasant and Biedermaier styles, the furniture showing Japanese and English influence.

Both Werkstätten groups filled architectural contracts, designed interiors for national and municipal public buildings, railroad cars, banks, hotels and private residences. The influence of their work was felt by the most obscure village carpenter, whose orders reflected the new style as the large associations expressed it. Probably the largest commission ever filled by them was the furnishing of the S. S. Bremen, generally considered one of the most beautiful of the newer transatlantic liners; it was not overdecorated, but harmoniously modern throughout.

The unified efforts of the two workshop organizations contributed greatly to the evolution of a clearly defined style. The artistic and trade co-operation which they furthered between the north and south also helped to erase the tribal differences that existed between the two sections of the country.

There were a great number of smaller Werkstätten, as well as societies such as the Bayerische Kunstgewerbeverein in Munich, which were merely exhibition groups. The Bavarian society was founded in 1850 for the purpose of encouraging native contemporary and peasant arts and crafts to counteract the influence of the French periods which had predominated since the eighteenth century. Ferdinand von Miller was the

famous leader of the society. He was the founder of the Technical Museum in Munich, the first of its kind.

Effective propaganda for the contemporary style was conducted by the numerous magazines which appeared in rapid succession during the 1890's. Not all of them dealt with art subjects, but they used the new lettering, type faces and illustrations. Besides Deutsche Kunst und Dekoration in Darmstadt, other important publications were Pan, founded in 1895; Innendekoration, Jugend, Dekorative Kunst, Die Kunst, and Textilkunst und Industrie. In later years, Die Form was the important Werkbund publication, and Die Pyramide dealt with architecture and decorative art.

Next to the schools and Werkstätten, the exhibitions ranked in importance as a means of building up the new style. The first modern exhibits were held in Munich and Cologne. The Dresden event to which Bing sent Van de Velde's work was larger.

Van de Velde's success at Dresden caused him to open a studio workshop in Berlin where he designed not only buildings and decorative art, but also women's fashions. In 1902, the artist became director of the Kunstgewerbeschule in Weimar, which he developed into an internationally famous institution. One of his best early buildings was the Nietzsche-Archiv in that city.

During the years 1895 to 1905, the exhibitions revealed the gradual change that was taking place, as materials and forms were brought into harmony with the machine. In 1900, Munich sent Jugendstil to Paris; in 1902, in Turin, the flowing line was less in evidence. In 1903, in Munich, an important design influence was the Glasgow school. Charles R. Mackintosh and Baillie-Scott had been invited to participate.

It was the international exhibition at Dresden in 1906 which first revealed a German movement that had definite characteristics of its own. The objects and interiors repre-

sented middle-class quality in good taste. New and important was the differentiation between applied art and industrial design. There was strong emphasis that the former involved creation of an individual piece, while the latter required a basic model suitable for quantity production. Also exhibited, for the first time in an arts and crafts exhibition, were architecture, landscape gardening and technical design.

The year 1907 marked the founding of still another important national group. It was dedicated to the improvement and promotion of applied and industrial art, and to raising the quality of mass-produced articles. The Deutsche Werkbund membership included architects, designers, craftsmen, manufacturers and merchants. It owed its existence to a campaign fought by Hermann Muthesius for simplification; high costs and the word Kunstgewerbe (art crafts) limited most new production to the luxury trade. Several leading manufacturers saw Muthesius's point of view, and the Werkbund was founded with the word "art" omitted from the name.

Muthesius was an architect and decorator. He had studied the new English residential architecture that was influencing all of Europe and one of his important writings was the book, *The English House*, which called attention to necessary housing reforms in Germany. This book contributed toward the building of many workingmen's settlements and suburban garden cities.

By 1910, the Werkbund's members totaled 360 artists, 267 representatives of industry and trade, and 105 museum officials and other interested persons. The association offered lecture courses, held exhibitions and issued educational and promotional publications. An example of the effectiveness of the program to bring good design to the average consumer could be seen in Dresden's textile industry. Experiments were made with the collaboration of designer and industrialist as

early as 1907 concerning color schemes, patterns and weaves which combined cotton with jute and cotton with rayon, so as to obtain the best fabrics for the local manufacturer's chief market, the middle class.

One of the greatest contributions of the Werkbund was design protection for both artist and manufacturer. A buyer who selected an article made by a Werkbund member knew that the design was exclusive. To belong to it was, therefore, a commercial asset. On the other hand, a standard of workmanship was required for membership. In the few instances when design piracy was attempted, *Die Form*, the organization's magazine, prominently published photographs of both the original article, the copy, and the pirate's name. Austria, Sweden and Switzerland adopted the Werkbund idea.

Another step toward a unified style was taken in 1907, when Peter Behrens resigned as head of the Düsseldorfer Kunst-gewerbeschule to become the art director of the Allgemeine Elektrizitäts-Gesellschaft. Like most of such firms, the company made a large number of appliances. Behrens designed a modern building, brought the designs of the products into harmony and made layouts for catalogues and advertising material. Because of the saving of material and labor and the publicity value of the scheme, other industries soon adopted the idea.

Munich celebrated the Three-Quarter Thousand Years Jubilee of the existence of the city in 1908. Artists and manufacturers thought this a good year for the first arts and crafts exhibition held in two decades. In a competitive spirit, they sought to outdo their closest rivals in art, Berlin and Dresden. The event influenced exhibition display and organization for years. The buildings, designed by Karl Bertsch, were permanent structures of concrete set in a grove of gardens. In them was housed every kind of object into whose making design entered, from majolica sculpture to doorknobs, to-

gether with models which illustrated the manufacturing processes. One of the notable buildings was the Artists' Theatre. Its simplicity extended to the stage settings, from which all naturalistic scenery had been omitted.

The modern movement was now so widespread that it becomes necessary to point to special developments here and there, in the various fields of design. In Berlin, Messel had built the great Wertheim department store, which, until the Nazis came, was also an art center. There Baillie-Scott's furniture was first shown. In the Black Forest there were two sanatoria with modern furnishings and equipment. The city of Dessau had built a marriage bureau of modern design; Dresden, a church; Munich, a hotel and theater. There were barber shops, camera stores and restaurants with modern interiors in numerous cities. Subway stations and an increasing number of factories were being built with new materials and with exteriors dictated by the interior arrangement. Four transatlantic liners were furnished in modern from designs executed in part by the Vereinigte Werkstätten.

Book design and typography had undergone great changes since the early days of the Morris revival when beautiful volumes were luxury articles. The new ones were simply made, with figured linen or decorative paper covers for the average purchaser. The Meissen and Nymphenburg ceramic works were including simple pieces in their collections. There was a new interest in pottery and in unornamented china.

Among the best-known architects, designers and decorative sculptors at this time were Berndl, Endell, von Mayrhofer, J. Wakerle, of Munich; Emil Geiger, Käte Kruse, F. Seek, of Berlin; L. Lamprecht, of Leipzig; H. Mutz and Margaret von Brauchitsch, of Hamburg; Otto Gussman, of Dresden; I. Scharvogel and Immanuel J. Margold, of Darmstadt; Max Läuger, of Karlsruhe. Three artists already mentioned were

internationally famous. They were Bruno Paul, Richard Riemerschmid and Adelbert Niemeyer.

Paul was a successful Munich painter who became an architect. He planned railroad stations, exhibition halls, shops, clubs, castles; he designed tapestries, murals and private interiors. When Macy's department store in New York held a large exhibition of modern art during the 1920's, Paul managed the German exhibit and designed one of the interiors. He also decorated a large part of the S. S. Bremen. He had been appointed director of the Kunstgewerbeschule in Berlin by the emperor.

Adelbert Niemeyer was a Rhinelander working in Munich, whose designs had great elegance. He created, in addition to many luxurious interiors, ceramics and china for Nymphenburg, also glass, textiles, hand lettering, radiator coverings and lighting fixtures. His furniture showed some French Provincial, Biedermaier and Japanese influence.

Riemerschmid was already a leader during the Jugendstil days, but he soon became a convert to the "form for use" doctrine. In addition to his many private architectural and decorating commissions, and his leadership at the Hellerau furniture Werkstätte, he designed ceramics, fabrics and wrought metal.

As the elimination of ornament had become so complete since the passing of the Jugendstil, a reaction to plainness set in about 1912 in architecture. Interest in the historic styles, as inspiration for new designs, was returning. The new trend was noted with alarm by most modernists, yet even Van de Velde sometimes used decoration. The interval continued until postwar functionalism eliminated it from almost everything except the arts and crafts.

In 1912, at the invitation of John Cotton Dana, curator of the Newark Museum, the German Museum for Art in Trade and Industry organized a traveling exhibition of German and Viennese applied art for the United States. The exhibition was shown in St. Louis, Chicago, Indianapolis, Cincinnati and Pittsburgh. It was at this time that Germany was recognized in Europe as the leader of the modern applied art movement. The Munich exhibition in Brussels in 1910 and that at the Salon d'Automne in Paris during the same year, which had filled eighteen rooms, were remarkably successful. The latter was so popular that on several occasions the crowd had to be regulated by the police. Sales amounted to 100,000 marks.

In 1914, the German and Austrian Werkebunde held their first joint exhibition at Cologne. From then until the early twenties, the war, inflation and depressions prevented any noticeable resumption of either decorative or industrial design. In 1918, there was a Werkbund exhibit in Copenhagen, but it was small because many workshops had closed their doors for lack of a market. Interest in the condition of the schools was renewed when many young people wished to study applied art in preference to sculpture and painting.

In 1922, another German-Austrian exhibition was held at the Newark Museum. In addition to modern work there were examples of peasant art made from ancient forms and designs. Pieces of wrought iron designed by an artist who had built a studio in the Thuringian mountains were exhibited. The village smiths had executed them. Black Forest peasants were working in straw. A postwar novelty was a Meissen experiment with porcelain money.

To build up a new spirit following the military defeat, the official position of the Deutsche Reichskunstwart was established in 1920, with Professor Edwin Redslob as director. This was a cabinet post, equivalent to Minister of Art. Everything that pertained to art education and production was placed under the department. The service included advice to industrialists, the consideration of plans for public

buildings, the design of money, theatrical art and other matters. Through Redslob's able direction and his personal interest in the contemporary style, all art work was given a modern stamp. Many lectures and printed articles on quality helped to give it a high standard. The influence of the department extended into Austria. But when Hitler took over the government, Redslob was dismissed.

The deteriorating social and economic conditions had two opposite effects on the designers. Some, influenced by expressionism, cubism, dadaism and the rediscovered El Greco, used symbolic, mystical and religious subjects for ceramics, carvings and textiles. Others were led to superficialities such as decorative dolls, blown glass animals and flowers for display in cabinets or as table centers, and stuffed and painted toys for adult amusement.

As the artists were driven from one fad to another, unable to find solid ground in the confused world, a group of young architects made a determined return to the ancient principles which Van de Velde and Adolf Loos had presented to the machine age years ago. These now became the basis for a new movement termed Sachlichkeit (functionalism).

Functionalism rested on the realization of the laws which are peculiar to a technically produced form. Heretofore, the measure of beauty in an object was based on ancient ideals of which man is the center. Now it was recognized that the essence of technology, far removed from relation to human forms and feeling, lay within the bounds of construction methods and materials. The laws and principles of technology, as well as the new materials, such as steel, concrete and glass, were transferred to building, and through architecture they dominated the arts and crafts. The word "art" was banished as not applicable to the materialistic approach. Everything representational was eliminated from design.

As functionalism spread, the new primitive school also

gathered adherents. Many artists, fleeing from materialism and sophistication, were returning to the use of crude native materials, naïve ornament and folk art. African art, introduced by way of France, was having a marked effect on design. The question, technological versus primitive form, had a philosophical aspect, and numerous books were written concerning which school was the true expression of the restless era. A writer for the Werkbund made this significant comparison: "Here is technology, the machine, organization; there the soul, man, the community; here is rationalism, reason and science; there emotion, religion, mysticism; here the will to power, there all-encompassing love."

The focal point of functionalism in Europe was the Bauhaus. It was founded in 1919 by Walter Gropius, who had formerly worked with Peter Behrens. Erroneously it has been stated that Van de Velde established the school, whereas he had returned to Belgium in 1914, leaving vacant the directorship of the Grossherzogliche Hochschule of Fine Arts, as well as the Grossherzogliche Kunstgewerbeschule in Weimar. Gropius was asked by the Grand Duke to take them both over. He did this, and after the war combined them into the Staatliches Bauhaus Weimar. The school became world famous, even though from the beginning some of its theories were regarded with deep skepticism by conservatives in industry and art.

In 1925, because of insufficient financial support by the new democratic government of Thuringia, the Bauhaus school accepted the invitation of the city of Dessau to continue work as the municipal Bauhaus Dessau. Gropius designed the model buildings, including the Meister Häuser, with experimental laboratories and workshops. When he resigned in 1928 to open an architectural office in Berlin, Hannes Meyer became the director, remaining until 1930, when Mies van der Rohe was appointed his successor. Both Gropius and

van der Rohe have been working and teaching in the United States for a number of years.

Because the local government declared that the Bauhaus was encouraging "cultural bolshevism," the municipal authorities decided to close the school October 1, 1932. The teachers reopened it as a private school in Berlin, but in 1933 this was discontinued also. On April 1, 1930, the Staatliche Bauhochschule in Weimar, whose theories were similar, was also closed. With his disapproval and the statement that the flat roof was Jewish, Hitler threw teachers and artists who worked in the functional style out of work throughout Germany. During the last years of the Bauhaus, at least 25,000 people from all over the world had visited it to study its methods.

The name Bauhaus describes the school's aim. The crafts were as subordinated to architecture as in the Middle Ages, the only difference being that now romanticism and historic considerations were eliminated. Proportions and room arrangements followed technical demands and contemporary social needs and habits. Two examples, one old and the other new, illustrate the Bauhaus idea of functional furniture. The Thonet chair, first made at Boppard in the Rhineland by Michael Thonet (Thon-et) in the early part of the nineteenth century and later in Vienna, was called an example of pure functionalism. Because of its lightness and strength, the chair is still used all over the world. (See Austria.) To fill the same need with new material, Marcel Breuer of the Bauhaus made the steel tube chair. It was made possible by the invention of the seamless tube by Mannesmann. Breuer, too, is now working in the United States.

Gropius picked men for his teaching staff who were "thoroughly experienced in the practical and mechanical, as well as the theoretical, scientific and formal aspects of design" and who knew methods of quantity production. As additional teachers were needed, they were chosen from the school's apprentices.

The system included making sketches, blueprints and models. The models were thought out from the "type" standpoint. Use and marketability were considered. Separate parts were simplified and assembled so as to reduce labor and save materials. And efforts were made to find uses for them other than in the original object.

Among the best known Bauhaus teachers not already mentioned were Lyonel Feininger, Kandinsky, Adolf Meyer, Josef Albers, Klee, Bayer and the Hungarian Moholy-Nagy. The last named became an important figure in the art world of the United States as the director of the Chicago Institute of Design, a position he held until his death in 1947.

Van der Rohe's most noted building in his Bauhaus days was the Tugendhart house in Brünn (now Brno, Czechoslovakia), a counterpart in originality and unusual design of Josef Hoffmann's Stoclet mansion in Brussels. For years architects and students made long journeys to study the house.

Functionalism was predominantly a German movement. Although it influenced all of Europe, pure functional design was nowhere else so sustained. Both the French and Viennese temperaments demand ornamentation. Furthermore, neither country had developed technologically to the same degree. The German public, however, was slow to accept functional designs for decorative purposes, and some artists criticized it severely. In 1924, the Werkbund held an exhibition in Munich entitled "Form Ohne Ornament," in which everything from frying pans to curtains had been made according to functional principles and manufactured in quantity. The descriptive phrases in the catalogue concerning the displays included "the gleam of glass and shimmer on metal," "charm of the material" and "variety in the texture of fabrics." But the sponsors were not entirely happy about the victory of technology. On the contrary, a Werkbund official wrote about it, "We admire the power and greatness of technology . . . but at the same time, we fear and hate it. . . .

It is a Moloch to whose power . . . we bring terrible sacrifices of human happiness and human dignity. . . . "

Among the exhibited objects were soap, laboratory glass, fireproof kitchen glass, kettles, cigarette lighters, coal scuttles, gravestones, stoves, hardware, as well as decorative glass, china and pottery. The best designs had the simplicity of ancient Chinese, Roman and Egyptian forms. "Ewige Formen" (Eternal Forms) were the main inspiration of the functional style.

In the furniture exhibits three forms predominated: the block, inspired by stone, which closed all construction within a plain, massive shape; the box, consisting of boards, frame and feet built up into a chest, desk or cabinet; and the framework form favored by the Bauhaus, with all construction as visible as Van de Velde had made it years before when he left plumbing pipes exposed in his first shop interior.

In 1930, the Werkbund held a similar exhibition in Paris. Die Form reprinted abstracts from French and English reviews about it and an article by Gaston Varenne which typified a part of French opinion. This stated:

"We admire very much the boldness of [the Werkbund's] action . . . its fight, not for a new art, but for a better life, rich in a thousand possibilities. But this ideal, so completely opposed to our Latin ideal, and even to the European, far from impresses all of Germany to date. . . . There is the school of Darmstadt which reflects the spirit of the Rhineland, often influenced by the Viennese artists; this is a culture more Occidental, more southern, and more smiling, too." In different terms, the opinions of Varenne and the Werkbund representative were closely similar.

Certainly the opposition to functionalism could not be ignored. As could be seen in every Werkstätten showroom the primitive school and the lovers of decoration did good modern work, restrained and charming. Lamps were appearing with

bases designed in simplified animal forms. Walls were decorated with delicate relief which emphasized light and shade. Much of the ornament on ceramics, china, furniture and fabrics was influenced by the East. Glass was delicate, a favorite decoration being diagonal red or blue stripes. Some Werkstätten glass designs were executed in Italy. Extremely decorative were the graceful wall sconces of rigid leaf designs in gilt copper, or white with gold. Even the baroque influence appeared in small pieces of furniture and porcelain.

During the twenties, great progress was made in the design of type faces. As early as 1905, the government had appropriated funds to enable teachers to study typography under Peter Behrens, and a large number of simple designs for posters, books, store signs and newspapers appeared. Under Professor Walter Tiemann the Academy of Art at Leipzig, which was the largest publishing city in the world, was devoted mostly to the production of type, hand lettering and bookmaking. Futura became, and still is, one of the most popular sans-serif designs, and formed the basis of hundreds of similar types. Artistic packaging was developed, as attention was given to the smallest box and every type of wrapplied art through great improvements in composition, reproduction, and the proportions of the camera frame.

Before modern artists took an interest in shop windows, as much merchandise as possible was put into them at a time. The application of functional principles gave accent to one model or a simple grouping against a skillfully lighted background. To add to outside display space, to beautify the store, advertise its name, and dramatize the wares on the counters, the architects carried out all manner of ingenious new ideas.

Enormous strides in display methods of all kinds were made after the First World War. One of the beautiful exhibits Germany arranged was for the International Exhibition of Applied Art at Monza, near Milan, in 1927. The originally conceived display methods were remarkably effective. There were platforms of varying heights and colors; concealed lights flooded metal, glass and marble, and created dramatic light and shadow on wall surfaces.

Of the outstanding architects and decorators during the postwar period, Fritz A. Breuhaus was, perhaps, best able to achieve an atmosphere of great luxury with restraint. Though influenced by functionalism, he avoided its severity by means of rich fabrics and glowing colors. Breuhaus designed the first class of the S. S. Bremen. Professor E. Fahrenkamp of Düsseldorf was another designer of luxurious interiors. He could harmonize Eastern and Gothic influences and create an atmosphere of stately grandeur. Paul Borner, chief designer for Meissen, was noted for his experiments with new forms and a new kind of painting. He developed designs from flowers and plants that had never before been used for ceramics. His most notable work was the warrior memorial church in Meissen, containing magnificent porcelain figures and reliefs.

Like the Austrian economy, that of Germany deteriorated until it was impossible for the artists to earn a living. At times applied art could be bought at half the normal price. In one year the sales during a Munich exhibition decreased from 300,000 marks to 10,000. When the Nazi government took over power, prices rose as employment increased, but a great many restrictions were placed upon the artists.

The modern movement in Germany, almost from the first, had three clear aims: to create a consistent middle-class style; to design it for mass production; and to use good materials and workmanship. In the first two lay the main difference between Germany on the one hand, and France and Austria on the other. Neither of the other countries was primarily in-

terested in medium-priced production, but in satisfying a luxurious taste.

BELGIUM

EOGRAPHICALLY, politically and economically," writes Jan-Albert Goris, "Belgium is a crossroads of Europe. It has been so since Roman days, and the course of time has served only to accentuate this feature."

It is also true that every art influence in the world has made an imprint on Belgium. Renaissance, Chinese, Portuguese, Indian and French materials and forms all influenced the national applied art, contributing to its beauty. But the middle of the nineteenth century saw the country industrialized and prosperous, with a placid bourgeoisie living among the same kind of atrocities that were prevalent over the rest of Europe.

Belgium's unique gift to modernism was the architecture which contributed a great deal toward two important phases of the movement; Art Nouveau and functionalism. About 1885, the Belgian followers of Morris began to desert period forms. Five years later a small group started to plan buildings in harmony with the machine age. Victor Horta, Paul Hankar, S. Van Rijsselberghe and Henry Van de Velde guided the movement, with Horta the leader. They used no ornament, scorned imitation palaces, and went to work with concrete, steel and glass. Engineers joined forces with them. In 1898, Hennibique who invented reinforced concrete, built a house of the material in Brussels. He set fire to it, allowing it to burn for two days to prove the strength and value of his invention.

Horta's house in the Rue de Turin gave the impetus to Art Nouveau and the Jugendstil. His lectures on the need for logical construction for the convenience of the average citizen were the beginning of city planning. "I will, like the Gothic, express plan and construction in the façade," he declared, "and, like the Gothic, let the materials appear, and interpret nature by stylizing it in decoration." As professor and director of the Royal Beaux Art Academy, Horta could talk for two or three hours on his favorite subjects without stopping. "Renew all architecture, furniture, decoration!" he commanded. A perfectionist, he often had work that was under construction torn down and rebuilt. The ceiling in the great hall of the Beaux Art was demolished twice.

Horta's first important building was the House of the People in Brussels, commissioned by the Socialist Party in 1895. In a densely populated part of the city, surrounded by dangerous old buildings, he built low-cost stores, union halls, offices, a coffee house and a festival hall seating 3,000 persons by the use of inexpensive iron, glass and stone.

Paul Hankar (1861-1901) saw every building as an ensemble, the various elements of which were unified by architecture. His was a sensitive, highly personal style. Rijsselberghe, whose work was aristocratic, was influenced by the Renaissance, but he built the first hotel designed on the new principles. The Belgian pavilion for the Paris Exposition of 1925 was planned by him.

Some of the achievements of Henry Van de Velde in France and Germany are described in the chapters pertaining to those countries in this book. Because of his imagination, the vivid presentation of his ideas, and a remarkable energy, he became the leading early interpreter of the machine age in building. He lectured in Brussels from 1894 until 1900, and exhibited his work at the 1894 exhibition of the "Free Aesthetics" and the Salon of the XX, both of which were regarded by outsiders as gatherings of madmen. After leaving Germany during the First World War, Van de Velde went to Switzerland. When he returned to Belgium he encountered hostility in consequence of his years spent in Germany, and went to

Holland. But in 1926 he was recalled and appointed professor at the Higher Institute of Decorative Arts in Brussels. As Van de Velde had been active in the German Werkbund, he founded the League for the Renewal of Architecture and Associated Arts in Brussels, with a similar program for cooperation among artists, craftsmen, technicians and industrialists. But this effort failed. The individualistic Belgian artist is not temperamentally built to work successfully with others in a large organization.

The Higher Institute of Decorative Arts is now the National School of Architecture, on whose staff are noted architects and town planners such as Bourgeois, Jan Eggerick, Rafael Verwilghen and Louis van der Swaelman. In 1926 the Brussels Institut Supérieur des Arts Décoratifs (Higher Institute of Decorative Arts) was established by Huysmans, secretary of state. Courses in every branch of design are offered there: furniture, ceramics, metal work, textile, bookbinding, painting and sculpture, city planning and landscaping, typography, fashion, architecture, advertising art, naval construction and the design of musical instruments.

After the First World War, the International Congress of Modern Architecture at La Sarraz, Switzerland, popularly known as the CIAM, was an important influence among Belgian architects. They published a magazine and, under the guidance of Van der Swaelman, first professor of town planning at the Institute, the modernization of city streets and suburban towns made considerable progress.

One of Belgium's earliest modern furniture designers was Serrurier-Bovy of Liége. The first exhibition in the new style, besides the XX displays, was held in 1897, a showing consisting entirely of objects of ivory and precious metals. During the same year, the Exposition Universelle in Brussels for the first time consented to give space to the new type of applied art. At Turin in 1902, Belgian architects of the XX group

formed the advance guard in contemporary building, along with Holland and the Glasgow school. A much larger exhibition of arts and crafts was held at the Exposition Universelle in 1910, where the work of Professor Ernest Acker and Joseph Van Neck received high praise. Outstanding in modern Silver design was Philipp Wolfers of Wolfers Frères. In 1930, outstanding newcomers were Henry Lacoste and Victor Bourgeois and, in 1935, Louis Baes, engineer designer of the permanent exposition hall, together with Malfait and Petit.

As the Belgian modern movement received no support from the government or through private contributions, only the vigorous propaganda of the XX, the Art Circle, the Society of Beaux Arts and the art reviews gradually changed the official and public attitudes. Even as late as the 1920's, there was still strong hostility against the contemporary decorative style. A piece of embroidery shown by Van de Velde caused a scandal, perhaps partly because of personal animosity. A. V. Finch, whose ceramics met with little success, later taught at the Central School of Applied Art in Helsinki, and became the revered "father of Finnish ceramics." It was Finch who, about 1891 had bought some English revival objects in London, and interested his friends in Brussels in the Morris movement.

During the thirties, contemporary decorative art made steady but slow progress. Today Jacques Obozinski, Charles Colassin, Victor Marres, Fl. van Reeth, Oscar Jespers and Pierre Caille are among the architects and designers whose work is drawing more and more of the younger generation toward houses and furnishings in harmony with the era. After almost complete stoppage during the Second World War years, building and interior decorating in modern is again progressing.

HOLLAND

THE FINE seventeenth century houses of the great Dutch merchants still stand beside the canals of Amsterdam. Genuinely functional in their day, they combined an office, a warehouse and residence. Barges tied up to the front door to deliver merchandise which was then hoisted into the attic through an opening in the roof. The living quarters had the dignity that has always been associated with the Dutch people. There was little ornament but a great deal of good proportion, combined with sensitivity in the use of materials. The importations from all over the world during Holland's great mercantile days did not decrease the simplicity. Even Baroque did not have the excrescences that were characteristic of it in some countries.

The industrial revolution brought bad taste to Holland as it did everywhere else. There were abominable adaptations, and architects, under the French influence, covered good Dutch brick with stucco and marble. National good sense made such aberrations of comparatively short duration; for when the Morris doctrine swept the continent the younger men quickly returned to logical design.

Holland's importance in the modern movement is mainly architectural. During the early stage, the work of several architects influenced all of Central Europe. P. J. H. Cuypers, a pupil of Viollet-le-Duc revived the use of brick and made daring experiments with concrete, steel and glass. His designs, based on the sixteenth century native style, did a great deal to bring back unity. Toward the end of the century, H. P. Berlage (1856-1934) completed the purification of building design. The Commodity Exchange in Amsterdam, begun in 1898 and completed in 1903, is his most famous work. The granite stairway was rudely chiseled out. The walls are unplastered and the brick arches in the rooms bare. This build-

ing is a milestone between classicism and modernism. Unfortunately, Berlage's genius led followers to found the "Amsterdam school" in whose name some fantastic residences,

sterdam school in whose name some fantastic residences, housing developments and public buildings were perpetrated between 1910 and the end of the First World War.

Berlage brought the work of Frank Lloyd Wright to the attention of the Dutch through writings and lectures after a visit to the United States in 1911. As a result, Wright's influence in Holland was greater than in any other country. In collaboration with Jakob van den Bosch, Berlage also designed substantial, practical furniture, with almost no ornament except plain metal hardware.

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The strong influence of antitraditional de Stijl (the Style), a group of painters, sculptors and architects founded in 1917 by Theo van Doesburg, directed new building into functionalism. The organization's name was taken from the title of a magazine which they published. The cubist, Piet Mondriaan, was one of the important members. In his paintings, he depicted form by means of flat, rectangular planes of white and primary colors, separated by thin black lines. Similar rectangular figures found their way to balcony fences, stair rails, and door and window frames in the buildings of van Doesburg, G. Rietveld and the noted J. J. P. Oud. Another influencing theory concerning line was that of Van den Bosch. All lines can be used for design, he believed, but only a few for wood, the one for furniture generally being straight. Some lines are correct for copper and others for stone. This idea produced all kinds of linear combinations in decoration, replacing the floral motifs used so much in other countries.

In consequence of the artists' preoccupation with straight lines, the angularity of functional design did not cause as much dissension in Holland as in France and Germany. But functionalism was not widely accepted by the public. About 1935, the Dutch had a contemporary decorative style with a

slightly romantic and traditional feeling. An interesting country house built by Rietveld, the pioneer member of de Stijl in 1940, for Willem Panaa, one of the early modern furniture designers, was of brick, wood and thatch. In Dutch city architecture, there is remarkable harmony of design, due to a law requiring that every building permit be approved by a Board of Aesthetics. The principal concern of this board is street façades.

Just as Mondriaan later influenced architecture, so Jan Toorop, the famous painter, contributed to Art Nouveau by his use of the flowing line. Some of Toorop's murals are in the Commodity Exchange. Like his batiks and book covers, they reveal the influence of the Indian colonies. Dutch ceramics of the same period were famous throughout the world, notably Delft, Haag, Gouda, Amsterdam and Utrecht. Important work in modern silver was produced by Hoecker and Son. In 1892, the textile firm of Fentener van Vlissingen at Helmond first engaged a modernist to make chintz designs; and the United Royal Carpet Factories of Rotterdam began using patterns free from period motifs at about the same time. Holland's exhibit at the International Exhibition in Turin

Holland's exhibit at the International Exhibition in Turin in 1902 helped greatly to raise that disappointing event above the level of mediocrity with furniture, carpets and vases that did not imitate the English Arts and Crafts Society. The leather-covered chairs by Hillen are still good today. Pool's original bedroom had a peasant simplicity and solidity. Christian Wegerif's living room furniture was similar to the American Mission style. The simple little statuettes of beggars and animals by Mendez da Costa were remarkably sensitive.

As the new style developed, many artists and painters joined

As the new style developed, many artists and painters joined the modern movement. One famous professor of art, who designed stained glass, gave up his position to direct glass painting and firing in a workshop. The architect, K. P. C. de Bazel, experimented from 1910 to 1914 in the glass factory

of Leerdam where he made objects for everyday use which are still among the finest of that type produced in Europe. Men who earned their living as carpenters because there was no demand for fine workmanship began to study design and became apprentices with the artist-craftsmen.

Typical of the early difficulties encountered by the modernists was that they were obliged to use the backs of gaudy wall-papers in order to get paper with a texture but no pattern. It was a long time before the demand for modern was sufficient to warrant quantity production. But good arts and crafts objects found purchasers. Stained glass windows, baptismal fonts, murals and tapestries were made for the churches, and an applied art workshop and exhibition center helped to bring the new work to the general public. The permanent exhibition at the Municipal Museum of Amsterdam of good and bad applied art also contributed to the improvement of taste. applied art also contributed to the improvement of taste.

Between the two world wars, most promotional work was in the hands of Dr. Jan Francois van Royen, secretary-general of the Netherlands Post, Telegraph and Telephone. In addition to filling his government position, he conducted a printing press where fine editions were made. As early as 1906 van Royen had improved the design of post-office blank forms, and the first modern postage stamp, designed in 1913 by de Bazel, was the result of his interest. He brought the national government in close contact with applied art. Thus he was instrumental in the passage of a regulation which provided that a percentage of construction appropriations be allotted for art work. Van Royen brought the different artist groups into one organization, so that a united front was presented in matters such as exhibition space, commissions and protective rights. He also succeeded in bringing the manufacturers into active participation. Prisma der Kunsten, the organization's publication, was a lively journal in which music and fine arts were dealt with as well as the applied arts.

Before the German invasion of the Netherlands in 1940, a great exhibition had been planned to be shown at the Municipal Museum in Amsterdam under the title, "In Holland staat een Huis." The aim was to illustrate modernism in every department of the middle-class home. The war made the undertaking impossible, but the plans were preserved for later use. There was to be a children's playroom designed for the activities a child wishes to engage in within his own room. The family living room was planned to allow space for the private use of the father; also an area that could be utilized for playing chamber music, and another for storage space for workbaskets and toys. A very pleasant idea was that for a doctor's waiting room, so arranged that "patients would not need to stare in each other's faces."

Probably the finest example of Holland's contemporary decorative art was the steamship *Niew Amsterdam*. More than one hundred designers planned the harmonious interiors of this luxury vessel.

The architect, Paul Bromberg, has written: "Pioneers are able to launch a new movement, to dispose of outlived traditions; but only the people can create new culture. . . ." With the absorption of modern in their culture, the Dutch are advancing toward the style that will best express the age that is now beginning.

ITALY

M ORE THAN in any other country, the arts and crafts survived in Italy during the nineteenth century. Through wars and industrialization and depressions, men continued to carve wood, fashion delicate glass and elaborate silver. In hundreds of towns and villages the women made their exquisite laces. Indeed, the native love for the handicrafts and ornamentation was an important reason why the plain modern style, based on the principle of use, was late in

finding acceptance even among the artists. Moreover, all the Western countries bought Italian-made reproductions of period furniture. This was a lucrative market, like that of France, and no one wished to disturb it except a few rebellious young designers.

There had been no vitality in Italian art for many years. The copying of Renaissance patterns and bad taste in architecture, sculpture and furnishings were so commonplace that they were barely noticed. As to the beautiful peasant art, the coming of the railroad deprived Italy of most of it. The sober clothing of the city dweller, believed by the peasant to be superior, and the cheap mass-production ornaments and furnishings offered to him, destroyed the traditional costumes and forced the craftsmen into the factories. Art lovers, the Church and the aristocracy earnestly strove for a while to revive folk art, with a good deal of success. Some of the secret processes for making textile dyes, as well as colors and glazes for pottery, continued to be guarded from father to son as for centuries past. But at length the efforts failed. National poverty and the machine were insurmountable obstacles to a lasting revival. Before the First World War, however, some commercial workshops for peasant art had succeeded in creating a promising demand for their wares. Among these were the Salviati works at Venice and the Castellani workshops. Italian laces had a world market.

To the artist-designer who hoped to escape from the stagnation, Art Nouveau was indeed a bridge. Stile Liberty, so named after Liberty of London which made textiles in the style, provided an outlet for the urge to ornament, yet demanded emancipation from the past. Unfortunately, the prevailing lack of taste too often brought forth designs which indicated a losing battle with the new ideas.

In that day, the name of one designer stood out above all others for his understanding of the spirit of Art Nouveau:

Carlo Bugatti. When Bugatti received the grand prize for furniture at the International Exposition at Turin in 1902, it was given him with the words, "One saw not the intentional and fantastic effects of a seeker of new things, cost what it may; but a sincere and spontaneous expression of extremely strong feeling." As a form of relaxation from his architectural and other work, the artist painted delightful decorative panels and posters. They were strong in drawing, bright with harmonious colors and had a feeling of aristocratic elegance.

In one respect, the problem of developing a consistent contemporary style in Italy was the same as in Germany. Many cities had long been centers of applied art production, and the artists in each worked independently of the others. Unlike Germany, however, where Behrens, Van de Velde and others joined forces with the Werkbund in the creation of a national middle-class style, Italy lacked the essential co-operation among designers, manufacturers and schools. The modern influence was strong in painting, including the abstract schools, before it showed in applied art. Even as late as the second half of the 1920's, the furniture designers of Venice, Florence, Milan, Naples, Udine, Monza, Turin and other cities, produced highly individualistic work. Influences ranged all the way from Morris, the Glasgow School and Art Nouveau, through eighteenth century French and English, the Italian Renaissance, Baroque and modern Viennese. Heavy figural carving was still employed a good deal, but the "modernistic" type of functionalism could also be seen. Embroidered cushions, velvet upholstery, Oriental rugs, paneled walls were all used and frequently without logic.

The number of architects who designed good, simple interiors was steadily increasing, however, and among the most able during the twenties were Giannotti, Alberto Issel, Sello, the Brothers Ratti, Giacomo Cometti and Pulitzer. The last named became an outstanding decorator, to whom the fur-

nishings of the steamships Victoria and Conte di Savoia were entrusted.

Ceramics and silverware during these years were more consistent in style and more modern than furniture. Olga Modigliani's beautifully executed animals, peacocks, flower and plant motifs were reminiscent of Art Nouveau. Gio Ponti was designing superb decorative vases, figurines and porcelains for Richard-Ginori, the country's foremost ceramics manufacturers. Ponti's forms were of classic simplicity and the painting restrained and charming.

To Gio Ponti belongs much of the credit for modernizing Italy's decorative art. An outstanding architect and designer of silver, ceramics, textiles and furniture, he also promoted the new style through the lively pages of his magazines, *Domus* and *Stile*. By wisely advocating the new while also presenting basic similarities with the old, he helped to increase understanding, raise the public taste and stimulate demand for modern.

Ceramics had for centuries been an important industry in Italy, and the new movement was soon reflected in the designs. Richard-Ginori, the sixth oldest ceramic factory in Europe, provided the leadership in experimentation and encouragement of the modern artist. This firm had been established in 1735 by the Marquis Carlo Ginori, when only the Meissen, Sèvres, Vienna, Vincennes and Berlin factories existed. He had imported kaolin from China with his own ships, for the making of porcelain, and succeeded in obtaining a mass called Masso Bastardo, with which he produced the rare pieces sought by collectors the world over. The inhabitants of Doccia near Florence, where the original works were located, were given training in design and craftsmanship by native and foreign teachers in specially erected schools. Famous Florentine sculptors and painters came to Doccia to work. Successful chemical research soon made the firm independent of other

countries for material, and during the nineteenth century, the Ginori family bought the crown factory at Capodimonte. A great triumph achieved by the chemist Giusti was the revival of majolica as it had once been made in Urbino, Faenza and Gubbio. He rediscovered the world famous glaze of Luca della Robbia. In 1896, the Milan firm of Julius Richard joined Ginori. Other factories were added until, when the Second World War began, porcelains were made in Doccia, faïence in Milan (San Cristoforo), decorative faïence in Mantua, and inexpensive stoneware in Pisa.

The serious campaign to promote the contemporary style nationally did not start until after the International Exposition in Paris in 1925. Then it was carried on so intensively, that within a comparatively few years the new Italian applied art was a very important part of European production. Leaning heavily on German and French influence, it nevertheless was characteristic, especially in the use of native materials and rich colors.

Probably the most far-reaching efforts of education and promotion were made by the Institutione della Triennale d'Arte Decorativa in Milan. This triannual international exhibition grew into a national guide for artists and the public in matters of style trends, technical developments and standards of taste. By 1933, on the occasion of the fifth exposition, when the new Palace of Art was dedicated, there were ten foreign sections among the displays, including a documented survey of the revival of architecture in the entire world. Featured were twenty houses planned by groups of Italian architects to explain the characteristics of the modern house. Among the various types were workmen's homes, costly residences, schools, offices and hotels, showing the plans, technical advance, cost and furnishings for every scale of living. A campaign to revive mural painting was also conducted by the Triennale, beginning with the decoration of the walls of the

Palace of Art by forty young artists. Controversial subjects were also taken up and studied among the members, such as mass production versus individual design; ornamentation or none; the study of artisanship as against art craftsmanship; continual new production or standardization; and art objects versus objects for use.

Another influential organization was ENAPI (State Institution for the Promotion of Applied Arts and Industry). This had a program similar to the Werkbund and held exhibitions of its members' work at the Triennale.

Two other groups contributed to the revival. They were Studio D'Arte, organized by Enrico Galassi in Rome, and APEM in Milan. For the latter, Gio Ponti made a model collection of arts and crafts objects for study purposes, emphasizing color and originality.

Galassi was one of the greatest inspirations in the modern movement, drawing painters, architects and sculptors into the applied arts to strengthen the revival. He was tireless in promoting the style creatively and practically.

The government, in order to help the artists, passed a national law which provided that every public building must contain a certain percentage of art including painting, sculpture, mosaic, decorative objects and textiles. This step not only assured the designer of earnings, but brought into the arts and crafts more talented young people who might otherwise have been employed in factories or commercial establishments.

In addition to these activities, the competitions held by manufacturers of textiles, lighting fixtures, ceramics, building materials, radio cabinets and other articles, helped to increase interest in the movement. The Church, in keeping with its historic policy, purchased many modern pieces, although of the more restrained type; and some smaller churches were constructed with a new austerity that was distinctly functional.

During the early thirties, the exhibitions at Milan and in

other cities showed with what speed Italy was catching up with Austria, France and Germany in some branches of applied art. The greatest visible change was in architecture, for slum clearance and the founding of new towns and industries had created an enormous demand for housing, public buildings and factories. But in ceramics and glass as well, and to a lesser degree in furniture, the Biannual of Venice and smaller local displays showed a startling and successful swing away from the traditional. An exhibition of unusual interest, because it indicated to what an extent the contemporary style had penetrated, was that of the Artisans of All Italy, displayed at the Florence Fair. The members of this group, some of them small craftsmen working independently, had made original tea services and bowls of aluminum and other inexpensive metals, kitchen utensils, fireproof dishes and furniture of good design and excellent workmanship.

The inspiration for the new architecture came chiefly from Germany. Many hotels, apartment houses, clubs and residences were designed by German and Viennese architects until functionalism was more thoroughly understood at home. The many redecorated shops, too, including their sign lettering and arrangement, window displays and lighting, reflected the methods and ideas of the two countries to the north.

The love of marbles, color and dramatic effects made the modern shops of Milan, Rome, Florence and Venice distinctively Italian. There was a wine shop with a large wall decoration of blue glass engraved in silver. White marble was used for the exterior of a drugstore, the counters of which were beautifully finished walnut with a wide bronze border. A pastry shop and café was refurnished even to the coffee urns on the counter. Walls were red and gold, with a large painting under crystal by Ponti, a high winding staircase with a solid wood rail and crystal chandeliers and mosaics. An interesting bookstore had shelves painted black, red and gray.

A beautifully designed shop was in Catania, Sicily. The

rough finish on the walls had been obtained with Palermo sand; brackets of violet and red French marble were supported by slender, gleaming metal uprights. The furniture was ebony and rosewood, as flawlessly made as for a drawing room. In this store costly jewelry, ceramics and porcelains were on sale.

this store costly jewelry, ceramics and porcelains were on sale.

Inevitably, as the new conception of design progressed, it penetrated to the schools. The old teaching methods were deeply entrenched and it required persistence and sometimes a disregard for injured sensibilities to bring about a change. One of the most successful earlier reorganizations occurred in 1928, when Roberto Papini modernized the Museum of Industrial Art in Rome. Formerly the students had been given design problems such as a victory arch, murals for a cathedral or a palace hall. But Papini made the first architectural problem for the third year class the decoration of a florist shop. A second was a house for a gatekeeper having a wife and two children, which was to be placed at the park entrance of a luxurious villa.

Evening courses were introduced in the Museum School in sculpture, painting, and architecture. The students, some of them workers, attended the classes for three years to complete training they had begun in the lower schools. One of Papini's first acts of reform was to throw out the traditional plaster casts. Cauliflower, onions, carrots, apples, palms, cacti and lilies were used as models instead. Animals, including an eagle, a cat, an owl and a pigeon were brought in. A wooden manikin represented the human body.

"The classrooms stopped being factories of cheap geniuses," wrote Papini, "and instead the school became a forge for excellent workmen . . . who would be most valuable helps to artist creators. . . . Students saw that they received nothing unnecessary and made rapid progress. All who had left before . . . with their diplomas, requested to attend further as listeners and observers. . . ."

The many schools in which applied art was taught were of various types. The larger ones offered complete courses in design including architecture, furniture, ceramics, metals and textiles, while others specialized in the crafts alone, such as stone and wood carving, weaving, lace making and cabinet-making. Some of the most noted schools were the decorative art institutes located in Florence, Milan, Monza, Turin and Vicenza, and the ceramic schools of Teramo, Faenza, Venice and Ravenna.

Once the first wild urge to throw off tradition entirely had subsided, a calmer consideration of the contemporary style manifested itself. In this the schools joined, gradually bringing native materials back into use. This was essential. The modernists had gone so far in the elimination of the traditional that, when one home owner wished to have a bar installed of wood and marble, the architect told him that he could not work with those "unfamiliar materials." When the reaction came, the popular concrete was disdainfully referred to as "imitation stone." The peasant houses of Amalfi, Capri and Ischia, and the slender arches, unornamented walls and oblong doorways of the Middle Ages, were shown to be functional. The effect of this teaching was the appearance of a modified medieval style, notably in small houses.

To the frequently heard criticism that the modern style is so similar everywhere that it is almost impossible to tell from which country a design comes, an undeniable reply is to describe a typical modern Italian room. For, while the differences between Swedish and Austrian interiors may not be great they are very marked indeed between Swedish and Italian. Far removed from the plainness prevalent in the north is the vivid luxuriousness, even of functionalism, in the south. Exotic woods from the colonies were favorites during the thirties. Palisander, tuja, macassar, amaranth and palmwood, as well as burled walnut, mahogany, cedar and poplar were

used. Ebony, metal, ivory and polychrome inlay, bronze ornament and rich fabrics were characteristic although the forms of chairs, tables and chests were simple.

Bright color was as general in Italy as were subdued tones in Central Europe and the United States. The foyer of a distinguished new house had a yellow mosaic floor bordered with black marble. The walls were yellow stucco, the doorway red marble, the door itself black. A stairway with a gray iron balustrade and red handrail led to the upper apartments. A beautiful Rome dining room had ochre walls, a burnished, hammered steel table with a mirror top set against a mirrored wall. Steel frame chairs with velvet seats, a screen of woven, brass-finished steel, and a pale rose rug and transparent curtains of the same shade completed the furnishings.

The boudoir of a fashionable matron had pink terra-cotta walls, with two panels painted in exotic colors in tempera. The glass table had pink, silver and black painted bands. The couch was covered with light blue taffeta with a silver sheen, the blue lacquered chairs upholstered in silver taffeta. The draperies were yellow silk.

The heavy, boxlike armchairs of early functionalism did not become popular in Italy. Nor did the Breuer tubular steel chair, although variations, with fabric instead of leather upholstery, and black and white finishes, were introduced. A tubular steel bed also made its appearance. Charming were the many varieties of willow furniture, frequently covered with hemp fabrics in bright colors for terraces and gardens. ENAPI and the Society for Willow Industry developed this into an important branch of the Italian arts and crafts.

Sharply aware of faults in interior design, *Domus*, in 1933, impatiently criticized a fashion that had taken hold in Italy, as much as in the rest of Europe. "Once, many years ago," wrote the editor, "there was a bedroom by Hoffmann or Frank [of Vienna] with a round mirror and a horizontal

bracket table. Since then, bedroom furnishings like this are unlimited... A circle and a straight line is a very beautiful motif, but let us try another." In another article, concerning modernistic excesses, he said, "Capriciousness... must not be confused with artistic inspiration.... The task of the architect is to find new paths, but there is a limit; taste is not all, but a great part of art." Dozens of articles equally critical and corrective ceaselessly urged Italian artists to strive for perfection.

In every woodworking center, Cantu, Bologna, Chiavari, Florence, Milan, Cascina, Parma and Trieste, the contemporary style was now important. Among the foremost designers of furniture were the architects Ulrich, Buffa, Buzzi, Clerici, Ponti, and Tempestini. In the centuries-old centers of the marble industry, Carrara, Milan, Bergamo, Rome and Volterra, new and simple forms were being made. Modern mosaics, of which Galassi was one of the fine designers, were coming out of Venice, Ravenna and other cities.

Modern Italian glass equaled that of any other country. Only some of the superb engraved pieces of Orrefors and Lob-meyer excelled it. In Murano, Salviati's smoked glass became famous. Venini, one of whose designers was the versatile Tomaso Buzzi, turned out delicate bowls and vases, humorous impressionistic glass animals, and a new, heavy type of glass with bold engraving. Elaborate chandeliers and fixtures as well as simple wall brackets, designed for the new method of lighting, were specialties of this firm. One of the most famous makers of glass was Fontana of Milan, aided by the work of P. Chiesa.

Giacomo Cappellini was another artist who had given Murano glass a new fame. One of the new techniques there was to dip the finished piece into a clear glass fluid, thereby giving a transparent coating to the underneath color. The delicate blown glass covered with filigree also had great beauty. One of the most original artists who designed luxuri-

ous glass objects was Alfredo Ravasco, most of whose work had been in precious metals. One of his heavy crystal bowls had a top and handle of Oriental sapphires. He also used coral, lapis lazuli and sapphires in combination with agate and enamel for bowls and boxes.

The revival of ceramics was extraordinary. Many sculptors turned their attention to pottery and modern painters found that they could exercise their decorative skill freely in this field. Led by Richard-Ginori, a number of factories turned to new designs, old glazes were revived and new ones perfected. Doccia produced an exquisite ivory glaze. Another of the firm's achievements was a velvet-smooth gray, opaque glaze which they ornamented with old gold. Porcelain vases in pale tones, with simple gold decorations, dark earthenware, cool green and white vases of Greek influence in form and ornament, and stoneware of peasant influence came from their kilns in seemingly endless variety. At the same time, traditional designs were continued.

The famous old majolica workshops at Albisola, long carried on with financial sacrifices by the Farina-Contagalli family during the years of decay in the crafts, were turned over to Dante Morozzi, who revived fine figural pieces in modern designs. The inhabitants of Albisola also opened small workshops of their own in which they made figural ceramics, animals and objects boldly painted with native village scenes. One of the glazes was a crackle in dark tones, through which a lighter one underneath was visible. Among the nationally known ceramics designers was the painter de Salvo who made figural pieces for interiors and gardens, Giacomo Manzu, the noted sculptor, and Nino Strada, also a former painter, among whose successes were comic little animals in stoneware.

A new generation of metal craftsmen appeared, producing objects of silver, aluminum, brass and copper free from the naturalistic decoration and arabesques so long commonplace.

Expressionistic animals, combinations of several metals, flatware in functional designs, all these showed that a revolutionary change had taken place.

The textile industry proved to be a more difficult problem. It would take a long time to reach the beauty and quality attained during the Renaissance. But the young artists from the revitalized schools and their masters produced some excellent modern fabric designs within a few years. During the 1930's large patterns, stripes in contrasting colors and Roman plaids were fashionable for clothing. Brocaded silks, luxurious damasks in stylized plant designs and over-all geometric patterns were made for costly interiors. Modernized peasant cottons in stripes and plaids were popular for terrace and outdoor furniture.

Another craft in which the desired progress was not made was the handmade rug industry. There was a shortage of both materials and practiced workers. ENAPI took on the task of overcoming these obstacles but learned that, even if raw materials were available, only prolonged training could raise the standard of this home industry sufficiently. A few artists did create beautiful rug designs which were woven under their personal supervision. The designs were of peasant or Oriental influence, or had modern geometric patterns.

No other country produces exquisite laces and embroideries in such variety and quantity as Italy. Cantu, Burano, Florence, Perugia, Assisi, Torino, Asolo, Trieste, Rapallo, Milano, Sicily and Sardinia were the important centers until the Second World War, and in almost every village lace making was a home industry. Embroidered gloves of cobweb fragility, intricately worked net, trapunta in modern designs, spoke of the unlimited patience and skill of the workers. A magnificent lace cloth exhibited at the Triennale in 1933 showed scenes of fishermen engaged in net and spear fishing, people at play and work on land, and domestic and farm animals.

The new ocean vessels gave Italy the opportunity to show the world to what an extent her arts and crafts had been revived. The first to be furnished in a practical, simple manner were the *Victoria*, *Conte Grande*, *Vulcania* and *Saturnia*. Of these, the *Victoria* was the most sensationally modern. Larger, and with richer interiors, was the newer *Conte di Savoia*. The *Rex*, greatest of the Italian transatlantic ships, was sumptuously furnished without loss of simplicity. As air travel increased, the cabins of planes also received the attention of the interior architects, largely because of the campaigns of ENAPI and *Domus*. And the officers' cabins on battleships were furnished in the contemporary style.

Typography and bookbinding were fields in which Italy had been world renowned, and modernism naturally brought about a fresh interest in them, very noticeable in the magazines. Alberto Tallone, who was a librarian, learned all the processes of bookmaking so that he could publish volumes that were perfect in type and binding. He edited and printed ten or twelve works from all the literary periods, including some by Homer, Aeschylus, Dante, Petrarch, Shakespeare and Goethe.

Italy's modern decorative style from the first was a luxurious one. In that respect it resembled the French. No effort of importance was made to establish a medium-priced middle-class style as in Germany, the Scandinavian countries and in the United States. Up to the beginning of the Second World War, the comment by *Domus* made in 1934 was essentially correct: "For the present, the modern style remains an aristocratic one, created by individuals. . . . When the dictates of the individual artists shall have been correctly understood and interpreted by disciplined craftsmen, then it will become a style."

THE SCANDINAVIAN COUNTRIES

THE ROOTS of the sturdy Scandinavian applied art style of today go deep into the past, to the bronze age. Even then the people produced beautifully carved weapons and ornaments. Later, for centuries, the silks, jewelry and handicrafts of many nations were brought to the primitive culture of the homelands by the vikings, affecting first the patricians, and then the peasants who created the sagas and incorporated the symbols of their gods into implements and textiles.

Conversion to Christianity and many wars caused the infusion of still other cultural influences, notably the Flemish, Dutch and Italian, in the Scandinavian countries. Every valley and county was celebrated for some type of carved and painted furniture, metalwork or weaving. During the eighteenth century, aristocratic France was the artistic inspiration of the cities. And then, as industrialization found new uses for the waterfalls and forests, a hitherto unknown affluence brought about revolutionary changes in living habits and mass demands for comfort.

Most of the population being rural, the peasants give the stamp of simplicity and ruggedness to the applied art of Sweden, Denmark and Norway. Loving the ancient motifs, contemporary artists continue to be inspired by them, so that tradition gives an unmistakably Nordic character to their design. At the same time, the production of each country also has its own individuality, clearly expressive of the differences in national temperaments.

SWEDEN

SWEDEN is the leading producer of applied and industrial art of the three Scandinavian countries. But in the days of Morris the young designers who followed his doctrine had a

hard struggle as they tried to eliminate the Victorian influence. Most of the early modern work begun about 1895 was Art Nouveau in the manner of the French, and this type lasted until nearly 1914. The artists Wallender and Wennerberg were noted for their vases and bowls decorated with flowers and nudes in relief. Boberg and Westman lead in furniture design, and Sjögren in book design and binding.

The Swedes have been called the "Frenchmen of the North." Certainly the French styles have been the most easily assimilated there and their influence was the most lasting. An easy grace, combined with playfulness in form and ornament are characteristic of the carving, ceramics, textiles, silver and the superb glass. French motifs were not copied, but interpreted. In place of French exquisiteness there appeared a heavier and more middle-class style. As there are no costly woods and metals in Sweden, wood carving replaced the luxurious bronze, and the native pine and fir took the place of mahogany. The result was sturdy simplicity.

The most perfect examples of native architecture and applied art of the early twentieth century can be seen in the Town Hall of Stockholm, designed by Ragnar Östberg and dedicated in 1925. It took thirty years to complete this stately edifice from the time the first plan was submitted. Beautiful examples of all the native crafts are contained in it. So close to the hearts of the architect and artisans was this work that they lived and slept in the building while it was under construction. After the First World War, the price of the copper needed for the roof rose to \$6.00 per plate, and then thousands of citizens donated plates, so that their Town Hall would be as planned, of the finest material and workmanship obtainable.

The famous Law Courts, designed by Carl Westman, were inspired by an historic native style. Carl Bergsten's Swedish Honor Pavilion for the Paris Exposition in 1925 was a good

example of the evolution of national modern. Then Asplund, a modernist with classical leanings and designer of the fine Stockholm City Library, turned to functionalism. He was the chief architect of the Exhibition of Swedish Arts and Crafts held in Stockholm in 1930, and his buildings were a sensation. Functionalism then appeared in apartment and residential architecture. Shops, restaurants and cafés outdid each other in glass and metal façades, dramatic lighting and signs. Another recognized master of functionalism is Markelius. He studied at the Bauhaus (see Germany) and designed the Swedish Pavilion at the New York World's Fair in 1939.

In the development of modernism from the Jugendstil to functionalism, the United States was an important influence in Sweden. Skyscrapers, American technological progress, automobiles and modern roads, all served to build up a picture of an advanced era in a powerful new world. Gustaf Munthe states that "it was not Le Corbusier who gave the death stroke to period architecture, but the skyscrapers."

Of the native handicrafts, the most important and the most ancient is textile weaving. For many years it was neglected, but when, in 1873, at the World's Fair at Vienna, the colors of peasant rugs and fabrics were greatly admired, Sweden again realized the cultural importance of this home industry. The following year, the Society of Swedish Home Industries was founded for the preservation of hand weaving and old designs. About thirty branch societies were established throughout the country, each functioning within a certain territory.

For a number of years, the purpose of these societies was to study local weaving methods, to form collections of historic patterns and encourage exact reproduction. It was a sort of sacrilege, therefore, when one of the members, Märta Måås Fjetterström, recommended that the old designs be used only as inspirational material for something entirely new. Her

resignation was demanded by ultraconservative officials. But Miss Fjetterström opened a studio and designed modern rugs and hangings which did much to bring world renown to Swedish applied art, and many artists followed her leadership. Under the guidance of the home industry societies, many peasants, however, have continued to reproduce the ancient patterns as they have done for centuries.

Through the workshops and schools of the Friends of Handwork, enormous progress has been made in the production of textiles for the craft-conscious middle-class public. The organization's output is characterized by subtle color gradations in cool blue, gray and violet tones with accents of gold and black. The noted leader of this group, Karin Wästberg, took over its artistic guidance in 1904, and became director in 1910. She held this position until 1930.

The great majority of Swedish textile, embroidery and lace designers are women, of whom the noted Anna Wettergren-Behm, Karna Asker, Lilli Zickerman and Märtha Gahn were modern pioneers. One of the beautiful pieces of modern embroidery made in Stockholm during the 1920's was designed for a motion picture theater. This strip of exquisite work runs across the entire gallery of the house. Another rare piece was a "fabric frieze" made in 1923 for the Gothenburg exhibition upon order of a group of woolen manufacturers. In 1926, a hand-woven drapery, made in an ancient Coptic technique in colors of brilliant red, gold and violet, was completed for the Stockholm Concert Hall. Vestments, altar cloths, laces and tapestries, in modern designs inspired by the Middle Ages, give to Sweden's churches a richness that is usually found only in Catholic countries.

A highly influential promotional organization is the more than a century old Svenska Slöjdföreningen (Swedish Society for Applied Art). Originally a craft society, it was reorganized in 1914 with a program similar to that of the German and Austrian Werkbunde. The collaborating designers and manufacturers have not only raised the standard of public taste, but have created a good market for all kinds of craftwork and industrial products. The importance of this society is greater than that of any similar organization elsewhere. During the 1920's, it was responsible for most of the refurnishing of hospitals and shops. Cheerless and unhygienic wards were transformed with bright colors and comfortable chairs. Newly designed stores and show windows appeared everywhere. Within three years, from 1923 to 1926, from twenty to thirty hospitals were modernized through this society's efforts. Among the numerous benefits achieved was the extensive employment of architects, designers, carpenters, painters and other workers.

Two other applied art groups are the Handicraft Guilds and the Swedish Society for Arts and Crafts. Like those previously mentioned, they receive government aid and have the wholehearted support of the public. All the craft and industrial associations hold frequent exhibitions of home interiors. Also important in the popularization of the modern style are the co-operatives. They manufacture excellently designed and inexpensive furniture for their members.

As a result of the propaganda and the fact that manufacturers advertise their designers' names, thousands of housewives are familiar with the various workshops, the type of textiles, silver or furniture each turns out, and what the new trends are. They take pride in the ownership of a piece designed by a known artist, whether it is an original or one produced in quantity. Two magazines have also contributed a great deal toward this education of the average woman. They are Form and Svenska Hem. The interiors shown have elegance, yet the tone of the publications is middle-class.

An internationally known educational center for the arts and crafts is the geat open air museum, Skansen, branch of the Nordic Museum at Stockholm. Skansen was founded by Dr.

Hazelius (born in 1833), who built up a model institution on a collection of fine old textiles and other objects. To house them, he purchased old buildings similar to those in which the articles had originally been used. The visitors' guides in those buildings wear the correct period or peasant costumes, the grounds are planted with the right trees, flowers and grain. In the great park are a variety of buildings: medieval cottages, an ancient storehouse, a Lapp camp, ancient churches and merchants' homes of different periods. Workshops have been established for glass-making and other crafts, while modern rugs, upholstery fabrics, tablecovers, and other hand and machine-made articles are exhibited. Continuous programs of folk music and dances, concerts and lectures, make Skansen one of the most interesting museums in the world.

The first exhibition of Swedish arts and crafts which clearly showed a modern trend was held in Stockholm in 1897, when Art Nouveau was flourishing. In 1914, the Baltic Exhibition in Malmö gave evidence that the early struggles for new forms and ornament had been almost overcome. The exhibition that helped very much to bring about consumer acceptance of the new style was held in 1918 in Stockholm, under the title: "More Beautiful Everyday Ware." A publication with the same name also did effective educational work. The massproduction articles displayed had a new simplicity with which average householders were unfamiliar, and the sponsors of the exhibition could only hope that the lower income groups would adopt them. Skeptics declared that the "little man" would prefer the "plush" to which he was accustomed. To everyone's astonishment, modern furniture won the immediate favor of all, including the peasantry, in part because the new designs were so closely related in principle to the traditional Swedish style.

In 1923, a large exhibition held in Göteborg showed a revival of the classic influence but, as if in protest, the exhibi-

tion at Stockholm in 1930 was completely functional. Though its popularity was short-lived, functionalism served to clear away the remnants of the historic periods.

Foremost among the schools for applied art is the Tekniska Skolan in Stockholm (trade school) which has a modern curriculum similar to that of the German Kunstgewerbeschulen. There are also many special weaving schools. The continuation schools achieve excellent results with boys and girls who are already employed. From all of these institutions, the pupils are promoted to the Högre Konstindustriella Skolan (Higher Art Industrial School) to learn metal work, weaving, textile design, bookbinding, furniture design, carving and the graphic arts.

While the first important phase of the craft renaissance began in 1915, it was not until 1919 that a genuine furniture style, with a traditional Swedish feeling and a handicraft character, made its appearance. As in all cultural developments, an outside influence made a considerable contribution. The noted Viennese architect, Professor Strnad of the Kunstgewerbeschule, has been called the source of Swedish modern furniture design. He created furniture of great elegance, and taught his students how best to emphasize the beauty and structure of wood. After the fall of the Austrian empire, national poverty made it impossible to sell the executed models. The Swedes, fortunately working under happier circumstances, carried out some of Strnad's designs in modified form, so that they were appropriate for simple homes.

During the early evolutionary period, three architects were in the forefront of the modern movement: Östberg, designer of the Town Hall; Ivar Tengbom, planner of the Stockholm Concert Hall; and Carl Malmsten. The last named undoubtedly had the greatest influence on furniture, for his followers continued to give his stamp to their own designs for a generation.

Malmsten was not only a designer, but a master cabinetmaker. It has been said that no one else in the country could make such perfect chairs for the relaxation of a tired body. His love for wood and the ability to bring out its beauty sometimes led him to use inlay in elaborate, imaginative designs, sometimes to apply only a simple glaze. Malmsten's first inspiration was the Renaissance, followed by Swedish and English Baroque. Later he achieved an individual style based on the simple, native Gustavian. Some of his most beautiful work is in the Town Hall, and in a room presented by the citizens of Stockholm to the Crown Prince and his bride as a wedding gift. But Malmsten's chief interest was not costly furniture, but a good mass product. He designed home furniture of this type for two factories, and produced low-priced office furniture for another. In addition he created tapestries and wallpapers.

Metal furniture had a brief vogue in Sweden about 1930, when the Bauhaus influence was strong, but the general feeling about it was well summed up by Munthe: "The right-minded functionalist regards the steel tube chair with quivering awe, somewhat like the Chinese view a Buddha. . . . Steel can be so twisted in any direction without offending common sense, that an old traditionalist who sits on steel furniture becomes silent with horror. . . ." Judging from the relegation of the steel chair to commercial interiors, the traditionalists were in the majority.

Among the functionalists, Asplund, Ahren and Bruno Mattson are present-day leaders, as is also Josef Frank, a Viennese, whose elegant interiors are created for Svenskt Tenn. This distinguished firm is guided by Mrs. Estrid Ericson, designer and teacher, who established the business in 1924 as a workshop for pewter ware, the name Svenskt Tenn meaning Swedish pewter. The designs were either hers or, if figural compositions, were drawn by the sculptor Fougsted.

As the interest in modern interiors developed, Mrs. Ericson gradually added furnishings to her establishment, which has for years been the most consistently modern in Stockholm.

There is a great department store in Stockholm which reminds the visitor of Primavera in Paris or of Wertheim in Berlin. It is Nordiska Kompaniet, headquarters for the best applied art and manufactured household goods in Sweden. The store is not only an agency for a number of independent artists, but it has employed men like Malmsten and Bergsten to make designs for its special departments. Along with the arts and crafts societies, Nordiska Kompaniet has done admirable educational work for modern through advertising and merchandising methods. Glass, faïence and china are superbly displayed. Textiles, lighting fixtures, rugs, silver and kitchenware can be bought, from the most costly products to the least expensive.

Nordiska Kompaniet has two engaging customs. Men with cigars deposit them on numbered trays near the entrance, from which they can pick them up again as they go out. Dogs, not permitted inside, are tied to two rows of chains at the door, and each animal has his own pan of water. Citizens claim that the waiting dogs never quarrel.

There is a well-known saying in Europe, "Take no beer to Munich and no girls to Paris." To this, a Swedish writer has added: "Take no glass to Sweden." The advice is good, because nowhere can more beautiful or a greater variety of glass be obtained.

The most famous name is Orrefors. The history of this little village in the Småland forest goes back to 1726 with the founding of an iron works which operated there until 1916. In 1898, a glass works was added, mainly for the production of ink bottles and window glass. In 1913, Consul Johan Ekman acquired the business, and invested capital for the production of a better quality glass similar to Gallé's in Paris. This was

discontinued for an original shimmering type called Graalglass, which depended for its effect on the flames and on accidents. The great rise of Orrefors came when two modern artists, Simon Gate and Edward Hald were engaged as designers. They revived engraving, discarding the deplorable, so-called diamond cut then in vogue, and made Orrefors one of the most important achievements in glass making in the world, comparable only to Lobmeyer of Vienna. In 1924 a school for engravers was established at the works, but this was discontinued in 1931.

Orrefors produces not only costly crystal, but also inexpensive household ware of the "finer-every-day-ware" type. The humble beer glass, for instance, has been transformed into a thing of beauty in dark green, gold or smoky tones. Champagne, wine and liqueur glasses have the forms and thickness that harmonize with the drink they are intended to hold. Cheaper glass, including bottles and other articles for technical use, is manufactured at the company's Sandviks works in Hovmantorp. Since about 1925, Orrefors also has made decorative lighting fixtures.

Gate and Hald obtained their first inspiration for their characteristic figural decorations from the great examples of the Italian Renaissance and German Baroque. Gate's compositions are mostly groups of running and dancing, heavily built female figures, while Hald's work is less naturalistic and has more delicacy.

Orrefors has influenced glass making everywhere in the world, but especially at home. The two largest factories are Kosta, established in 1741, and Reijmyre. Both formerly turned out traditional forms exclusively, but since 1920 they have been using modern designs. Some of their well-known experimenters in method and decoration are Sven Erixon, Arnold Karlström, Nilsson-Nille and the painter Edvin Ollers.

It was not until after 1914 that Swedish ceramics appeared

in modern forms. The two most important porcelain and stoneware factories are Rörstrand, more than two hundred years old, and Gustafsberg, established in 1827. About 1900, Alf Wallander and Gunnar Wennerberg introduced new designs influenced by Copenhagen and Art Nouveau, but it was the newly organized Slöjdföreningen which brought about a real renaissance.

Gustafsberg was long under the influence of Wedgwood, and even some recent production shows this. But the famous Wilhelm Kåge created completely modern work for the firm for more than thirty years. He started his career as a poster designer, and his many ideas were as varied and striking as those of an advertising artist. He was equally successful with the wholly practical, the impressively beautiful and the playfully decorative. His reddish-brown stoneware has a glaze much like the Chinese, and some of his luster faïence, a Spanish-Moorish feeling. The forms varied from the classic and peasant to surrealist.

One of Gustafsberg's most noted artists is Tyra Lundgren, who has also worked in Finland, Italy and other countries. She has been called Sweden's "only international applied art designer." She creates decorative figural reliefs, animals and birds in a highly individual style. One of Håge's gifted followers at Gustafsberg is Stig Lindberg.

The development of Rörstrand has run parallel to Gustafsberg. Nils Lundström was one of the important artists there for years, while Hald of Orrefors occasionally contributed a design for a table service or decorative pieces. A number of smaller factories also have designers with national reputations, among them Einar Forseth, whose gold mosaics are in the Town Hall. He paints murals, porcelains and designs textiles and wallpaper. Arthur Cison Percy is known for his richly colored faïence. Edgar Böckman's specialty is inexpensive stoneware and kitchen utensils.

In addition to the important artists who are on the producers' design staffs, a number of others are also outstanding. Jerk Werkmäster specializes in vases, jars and urns with the ancient drawings and ornaments of Dalarne. Mr. and Mrs. Triller in Tobo make their own ovens, fire their pottery, prepare the clay and mix the glazes. Of the latter Eric Wettergren says: "Sweden never before stroked a native glaze so smooth, nor saw form so Chinese."

Because the Swedish mines are rich in iron and copper, fine craftsmanship in these metals has continued since the bronze age. The Morris movement caused a strong revival of ironwork when imitation materials of all kinds were discarded. Gates, fences, fountains, radiator covers, stair-rails and locks are now made in the same simple, graceful style as other modern Swedish handicraft products. The new interest in metal also gave fresh importance to pewter. In form and surface treatment, the emphasis is placed upon the difference between this simple material and the more luxurious silver by such fine craftsmen as the Fougstedt Brothers and Estrid Ericson. Carved mirror frames, decorative objects, lighting fixtures, as well as tableware, are made of pewter.

Georg Jensen of Denmark has been an important influence in silver design. The love of traditional patterns in this medium has prevented the appearance of severely functional forms to any extent. Gunnar Asplund, Sidney Gibson and Jacob Ängman are among the leading artists in the field.

The story of Swedish arts and crafts is not complete without mention of Akke Kumlien, who restored typography and the art of bookmaking to the position it held during the eighteenth century.

To sum up the Swedish contemporary style, it keeps to a middle course in design, colors and ornamentation. Slight classic, Biedermaier, and French influences give it variety without causing confusion. An important contributing factor

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Norway

T HAS BEEN said that Norway is probably the land which, next to France, has done the most for the shaping of modern painting. Certainly this small cliffbound country produced a number of painters whose colors and impressionistic quality affected the various twentieth century schools. The most famous of them was Edvard Munch, who also influenced applied art design through his use of the flowing line.

In the field of architecture, the new era was most noticeable in Oslo, where the government and private individuals razed a great many old buildings, sometimes ruthlessly. In one such area stands the new Town Hall, begun in 1931, and now nearing completion. This building, designed by Arneberg and Poulsson, will be a treasure house of Norwegian arts and crafts. Murals, paintings and sculpture, metal and woodwork, furniture, textiles and glass are to be represented by the finest examples of Norwegian design and workmanship.

The cathedral in Trondheim has also offered an opportunity to contemporary artists. Originally built in 1152 and twice destroyed by fire, the cathedral's latest restoration was begun in 1869. Through competitions, sculptors and craftsmen are selected to enrich this historic building with decorative work in stone, wood and metal.

The same mixture of building styles that is usually seen in cities also exists in Oslo. These range from George Eliassen's early modern Norwegian-American Line building through the classic and romantic to functionalism, which was introduced about 1925 by Ole Bang and Lars Baker. The latter has found a number of adherents among the younger designers,

several of whom have developed highly individual styles without violating the fundamental principles.

The Norwegian arts and crafts, like those of Sweden and Denmark, show an historic and peasant influence that is unmistakably national. The development of modernism is best seen through the history of the Foreningen Brukskunst (Association for Applied Art), founded in 1918. As by that time machine production was accepted, the artists' chief interest lay in improving the quality of manufactured articles. To begin its educational campaign, the society held two large exhibitions, one entitled "Form and Color," and the other, "Your Own Home" The publicity which resulted from these "Your Own Home." The publicity which resulted from these events was satisfying enough but, as products in bad taste were clearly marked as such, the association incurred the lasting enmity of the industrialists.

lasting enmity of the industrialists.

Undaunted, two men, Thor Kielland and Jakob Prytz, maneuvered their way into the Oslo branch of the national organization of the furniture industry, the Craft and Industry Association, established about 1888. For years that group had been holding an annual public lottery in which the prizes ranged all the way from a complete house to a kitchen chair. Prytz and Kielland persuaded the lottery committee to exhibit some modern models instead of period reproductions, and a number of younger artists were given commissions to make the designs. Unfortunately, the sales that resulted from this experiment were exceedingly small. Moreover, the contemporary style was condemned as unacceptable by those who were too impatient to build up a market for it.

Jakob Prytz is the owner of one of Norway's largest gold and silver firms, known under the name of J. Tostrup. He is also director and a teacher of metal work in the State School

also director and a teacher of metal work in the State School for Handicrafts, and the author of several volumes dealing with ornament. Kielland has been director of the Kunstindustrimuseet (Art Industry Museum) since 1918, and has published several books on applied and industrial art. In 1929, the two men again organized an exhibition under Brukskunst sponsorship. It was held in Bergen, and this time a sensational success showed how thoroughly years of educational work had converted the public mind to simplicity. The exhibition was the turning point for Norwegian applied art. Included in the work shown in the space obtained by the modernists with difficulty was glass by Svere Pettersen; porcelain from the Porsgrunn factory under the artistic leadership of Nora Guldbranssen; Theodor Friestad's faïence, and modern furniture by new designers. After another successful exhibition held in Trondheim in 1930, a permanent exhibition was organized in Oslo's Kunstnernes Hus (Artists' House), the first of its kind in the northern countries.

An excellent national magazine dealing with furniture and home furnishings is Bo-Nytt, which brings news of design developments, and publicizes the artists. During the Second World War, it kept alive the people's interest in furnishings, and brought illustrations and articles of inexpensive and substitute materials of every kind. Norway has a "mental work protection" law against piracy, which has been made still more effective since the second war.

still more effective since the second war.

Of great importance is the Norsk Husflidsforening (Norwegian House Industry Society), which represents textile designers and weavers and maintains showrooms and selling centers in the larger cities. The society has made studies of the methods and patterns used in the various provinces, and fosters their continuance. Textile weaving has been highly developed for centuries, and is a special pride of the people. The designs used today are ancient peasant ones as well as contemporary geometric, plant, animal and figural patterns. Among the artists, Else Poulsson is one of the most outstanding. Her beautiful wools are rich in color combinations, and she is as able to compose discreet patterns in delicate tones for dress and drapery fabrics as bold, richly hued ones.

In the field of ceramics, Norway has not progressed as

In the field of ceramics, Norway has not progressed as

much as in other fields. While the forms are good, decoration and glaze remain a problem which was greatly intensified by the shortages following the Second World War. The Norwegian artists in this, as in all the other branches of applied arts, are chiefly interested in design for mass production. They are working with eagerness to improve the quality of every household article that is used by the people.

DENMARK

THROUGH centuries, Denmark was somewhat influenced artistically by Germany, France, the Netherlands and England, the last two leaving the most enduring imprint on her arts and crafts. All of them, combined with the ancient Norse heritage, form the foundation of the twentieth century native style. Like that of Sweden and Norway it is a practical middle-class style and avoids the extremes of both functionalism and ornament; but it has a distinct national character and is in good taste.

During the early phase of the modern movement, the work of two brilliant architects had a far-reaching influence on the return to sound Danish design. One of them was Thorvald Bindesboll, who was probably the more influential, and whose work in ceramics and metal was famous. The other, Skovgaard, was noted for his unique ornament. On the whole, it was not difficult for such leaders to help convert Danish designers to the principles of Morris, Van de Velde and Loos, because simplicity is traditional in native building and furnishing.

The country did not escape Art Nouveau entirely, but its effects were comparatively unimportant. About 1870, Mogens Ballin, who was a painter, visited Paris, where he came under the influence of Gauguin and Van Gogh. In Italy, the simplicity of the Gothic spirit stirred him to paint religious pic-

tures. And about 1900, he succumbed to the arts and crafts revival and became a designer in the Art Nouveau style. Together with Siegfried Wagner, the sculptor, Ballin did remarkable work in various metals which until then had been neglected by the younger Danish craftsmen. Using tin, bronze, oxidized brass and silver, they made lamps, candlesticks, inkwells, pepper and salt boxes, picture frames and buttons. At about the same time, the famous porcelain house of Bing and Gröndahl, founded in 1853, entered the new era with the sensational designs of Bode Willumsen. This versatile artist created sculpture in an archaic style, made decorative ceramics, and did excellent work in metal. His fine bookbindings had a wide influence in Denmark and beyond.

Bing and Gröndahl and Royal Copenhagen (founded in 1779) are world-famous ceramic manufacturing firms. Their policy in regard to design, however, differs profoundly. The first company has kept steady pace with the developments of the modern style, changing from the early naturalistic and stylized types of decoration to plain functional forms. Yet it also remains faithful to the popular traditional designs. Royal Copenhagen, on the other hand, won international fame when the architect Arnold Krog created a typical style of Danish ware during the 1880's. This was a revival of underglaze painting on naturalistic forms, with designs of Japanese influence. Krog succeeded in obtaining a mass and a glaze that were perfection. For a generation, Copenhagen was the most important and most widely imitated porcelain in Europe. And since then, desiring to hold its conservative world market, the firm had made very little change toward a less realistic type of product.

The pioneer of the present, world-renowned Danish silver style was Bindesboll, who first attempted to free silverware from the elaborations of the nineties. About 1904 the silver of Georg Jensen made its first appearance. Achieving fame

because of its straightforward, handsome designs and fine workmanship, it became the foundation of the modern Danish silver industry. Next to Jensen's own work, that of Johan Rohde, who designed for him, has perhaps received the greatest acclaim; simple forms and openwork ornament are Rohde's characteristics.

A distinguished contemporary of Jensen was Frantz Hingelberg who began to make functional designs as early as 1897 in Aarhus. After years of struggle against the prevailing fashion he lived to see his work prized by connoisseurs throughout Europe. His son continued his father's work and today a grandson, Jorgen Hingelberg, carries on the high tradition. Another noted early silversmith was Hans Hansen. His simple forms date from the turn of the century, and won acclaim throughout Europe. Carl Gustaf Hansen, his son, today continues his father's craft. In addition to being a prome

acclaim throughout Europe. Carl Gustar Hansen, his son, today continues his father's craft. In addition to being a prominent designer of silver, he is a sculptor of high reputation.

As the modern style developed, leaders appeared in every branch who set standards of design and workmanship. Two younger architects gave a new character to the buildings of cosmopolitan Copenhagen and other cities. Carl Brummer and Frederick Wagner rebuilt and designed restaurants, factories, reilroad stations, barks, and public huildings. In the tories, railroad stations, banks and public buildings. In the crafts, Kai Fisker and Ebbe Sadolin were among the outstanding figures. Evald Nielsen, who early applied the contemporary style to precious metals, is today the celebrated dean of Copenhagen's goldsmiths. The pioneer in the modernization of the graphic arts was F. Hendricksen, while Ankar Kyster's superb work with bookbindings and type faces won high praise in neighboring Sweden.

During the first decade of the century, Denmark began to establish organizations for the promotion of applied art. The National Danish Association of Art Handicraft and Industrial Art was founded in 1907 by a group of artisans and designers

for the purpose of raising quality. The members began by competing among themselves and by exhibiting their work. Years later, a large portion of those early unrecognized pieces was purchased by museums and private collectors. After 1925, the Association brought modern mass production articles to the attention of consumers with the slogan, "Utility Wares of Pleasing Design." Since then there has been energetic activity in a campaign which aims to raise the standard of taste in home furnishings, especially among low income families. Through frequent exhibitions on a national scale, lecture programs, competitions and collaboration with newspapers and magazines the Association has had a tremendous influence on the appearance of thousands of homes. Nyt Tidsskrift för Kunstindustri (New Journal of Industrial Art), the popular official periodical, publishes excellent articles regarding new furniture, fabrics, ceramics and interiors designed by Danish artists, and from other countries.

Study groups, whose membership consists mostly of young people, are organized by the Association for the purpose of keeping consumers informed regarding such matters as housing, home equipment and furnishings. During the second world war, the organization made a survey of 650 apartments, recording the arrangements, as well as the discrepancies existing between a family's living quarters and the furnishings contained in them. The findings were to provide a basis for postwar promotional efforts.

Two other organizations which have a wide influence are the Society for the Furthering of Needlework and the Danish Homecraft Society. The first has been especially active in furthering home industries and textile weaving in Greenland and the Faroe Islands, while the second confines its activities more to the homeland.

During the 1920's, an unusual partnership between two artists resulted in some of the finest ceramic work produced

in Denmark at that time. Jean Gauguin, son of the French painter, whose mother was Danish, worked with Kai Nielsen, the famous sculptor and illustrator. Characteristic of Nielsen's sensitive work were delicate figurines of women and children in a dazzling white glaze. Gauguin, on the other hand, was inspired by the heroic animals of the t'ang period. He produced a series of animal sculptures which revealed the Oriental influence, but his strong, virile compositions were wholly European in feeling. Gauguin's is one of the many distinguished names attached to the Bing and Gröndahl production.

The part taken by women in the Danish arts and crafts is very important. One who has achieved unique fame in ceramics is Nathalie Krebs, technician and chemical engineer, producer of the Saxbo stoneware, and a leader since the 1930's. An English authority on Chinese art has stated that hers was the best contemporary work of its kind being made in the world. Nathalie Krebs does not design, but she is considered an artist because of her influence on the perfection of her ceramics. Her glowing black, reddish-brown and gray-white glazes have been among the most beautiful of Saxbo's production. Eva Staehr Nielsen, her assistant, creates the forms. Numerous younger artists go to Saxbo to have their work executed by the famous expert who never leaves a result to chance or to capricious accident.

The development of modern Danish furniture began with a few bold attempts at new forms which met with little approval. But as technology and changing living habits transformed the size, arrangement and even the uses to which a home was put, public interest increased greatly.

In 1928, an exhibition of Danish applied art, held at the Art Museum in Brooklyn, N. Y., and later shown in other American cities, displayed the important trends in contemporary design. There was a desk and chair of palisander, the

latter with goat hide covering. An elaborately designed couch was covered with fur, an upholstery fashion introduced by way of Paris. A small sewing table had a footrest covered with fur. Wood surfaces were highly polished, and only occasionally was there any use of inlay.

The theories of Adolf Loos which crystallized the functional style in Central Europe brought about a radical change in Danish furniture design. The use for which a piece was to be designed was analyzed and dimensions determined accordingly. Wood treatments were based on the kind of interior for which the article was intended. Chair styles were divided into specific types: for work, dining, comfortable sitting and for reclining. This adherence to pure functionalism resulted in a lack of freedom in design, but soon that difficulty was overcome without sacrificing simplicity. The manufactured furniture for the average Danish family today is so neutral in its good, practical forms that a purchaser can select any piece with the certainty that it will harmonize with what he already owns. This style unity has made the "set" of furniture as obsolete as is the separate dining room in the same class of home.

At the Royal Academy of Fine Arts, Professor Kaare Klint, himself a noted designer, is teacher to the entire younger generation of architects who expect also to design furniture. It is said of Klint that he was a functionalist before the word existed. Influenced by eighteenth century English and by Oriental art, he avoids ornament and has created a highly personal style. More than anyone else, he is responsible for the durability and harmony of modern Danish furniture.

The interest of artists and the public in furniture for quantity production has also been stimulated for the past twenty years through the annual competitions sponsored by Copenhagen's manufacturers. The best models are executed and exhibited, and attract large numbers of visitors.

One of the outstanding figures in the field of textiles is Marie Gudme Leth. She revived the old technique of calico printing and adapted it to modern needs and methods. The beauty of her colors and designs, as well as perfect printing, has won her an international reputation. As a part of the crafts revival, native weaving in the peasant tradition has been stimulated by Vaevestuen (the weaving room) under the leadership of Professor Anton Rosen. Another newly appreciated ancient peasant art is the making of Tønder lace, cultivated in western Sleswig.

Most Danish table glass is produced by the century-old factory, Holmegaurds Glasvaerk, whose principal modern designer has been Jacob E. Bang. In lighting, the so-called P-H lamp is one of the most important recent achievements. The technical understanding of its creator, the architect Poul Henningsen, and the elegance of the lamp's appearance, have made it famous. The problem of lighting is an ever interesting one in Denmark. The long nights are a challenge to both designers and technologists.

FINLAND

THE CLIMATE and history of Finland have given to its arts and crafts the character of simple strength.

The country, with its 60,000 lakes, varies from northern Lappland's mountains to the innumerable islands on the south. Vast forests produce the nation's greatest wealth. During the bitter winters, the length of a day may be but four hours, while in the short, brilliant summer one can read all night by the eerie light which floods the northern world after sunset. Then the coast is dotted with thousands of pleasure boats, and inland excursionists travel through the lakes on rafts.

Even considering the profound influence which natural

surroundings have on a nation, the individuality of Finnish applied art is remarkable. During six hundred years the country belonged to Sweden and for one hundred to Russia. Swedish culture has left an indelible imprint on the nation, yet political dependence only deepened the national consciousness. During the centuries when serfdom was prevalent the peasants remained free, successfully resisting every attempt to shackle them.

The English arts and crafts revival became noticeable in Finland about 1880. An attempt was made to form a national style but this soon gave way to neoclassicism. The Jugendstil was taken up, but it soon disappeared. Three influential artists during those years were Hannes Autere, a creator of superb wood reliefs, whose subjects were drawn from the life of the people; the painter Akseli Gallén-Kallela, whose "picture textiles" won international admiration at the Paris exhibition in 1900; and Ville Wallgren (born 1855 and died 1941), who designed statuettes of delicate dancers and flower girls in silver, bronze and terra cotta. His work was also known in France and the United States. Gallén-Kallela's series of illustrations for the Finnish epic, Kalevala, were masterpieces, and nearly every educated family in the country owned a copy of this book.

Ancient Finnish architecture during the Middle Ages was a simplified and severe Gothic, built of granite blocks. Through the small windows narrow rays of light broke in, creating a somberness which, in the churches, was relieved with brilliantly colored murals. The most generally used building material for houses was wood. Fired by the Morris revival, the leading young architects of the 1890's, Eliel Saarinen, A. Lindgren and H. Gesellius, returned to the use of granite and created a massive style ornamented with carvings of northern fauna and flora. When first seen by the outside world in the Finnish pavilion at Paris in 1900, it aroused

worldwide attention. Constructed in the earlier manner of this style are the National Museum and three insurance buildings in Helsinki. Later on, modified designs had lighter and more picturesque façades.

Saarinen's buildings are a highly personal expression. The best-known one is the railroad station in Helsinki, built after the First World War when the newly won independence caused an upsurge in every field of art. About 1925, Saarinen came to the United States, where he directs the work of the Cranbrook Academy of Art, near Detroit.

Alvar Aalto is one of the more recent of Finland's noted architects, having built numerous hospitals and business buildings in the functional style. His attractive, practical furniture is also sold in the United States. He is a designer of interesting glassware. During the competition for the Finnish pavilion of the New York World's Fair, Aalto and other members of his famous family won first, second and third prizes for their designs. The uniqueness of the furniture lies in the use of a bent plywood which the architect invented. In the collection of about eighty pieces, the most famous are the upholstered chairs having arms and sled runners, an armchair which has a molded plywood back and seat, and roundtopped tables and stools with bentwood legs. The collection is the successor to the internationally known Artek furniture, which was also sold in the United States about a decade ago. As this is written, Aalto is the senior design critic at the Massachusetts Institute of Technology, and divides his time between there and his office in Finland.

Two other architects who are important in the arts and crafts are Rafael Blomstedt, director of the Central School for Applied Arts, and Werner West, leader of the school's furniture design department. West was long chief designer of the furniture division of Stockmann, Helsinki's largest department store.

The high standard of modern Finnish design and workmanship is due to the close collaboration which exists among schools, museums and handicraft societies. One of the most active of the latter is the Friends of Manual Work of Finland, founded more than sixty years ago. The revival of old designs and techniques was its chief aim until the development of modern made the introduction of new designs possible. Twenty-three associations are dedicated to the conservation and development of weaving, the nation's most ancient home industry, an impressive number for so small a population.

Nationally organized are the Martta Societies, founded on the same principle as the Swedish groups of the same name. Their purpose is to encourage women's work in the home industries, to collect and study ancient textiles and to raise the standard of workmanship. Through exhibits held throughout Finland and in the other northern countries, the Martta Societies help to maintain the people's pride in the peasant industries. The special interest of the Society of Industrial Arts of Finland is mass production. It conducts a school of arts and crafts as well as a museum in Helsinki, and holds annual exhibitions. Good industrial art objects are purchased, and then awarded as lottery prizes to the public.

Finland's textiles, one of the country's most important products, are obtained from three sources. The largest is the factory output, but the manufacturers have been rather slow in collaborating with the artists. Of second importance are the studios conducted by independent designers who make exclusive fabrics, rugs and tapestries of great beauty. The third source is home industry. The particular attention given to obtaining higher quality and greater charm with the use of necessarily limited materials has brought the peasant products into the arts and crafts class.

The famous native handwoven rug is the ryijy, a possession

so highly prized that it is a part of every girl's dowry. Intended primarily as a bedspread, it is sometimes used as a floor covering during a marriage ceremony. On festive occasions it often serves as a wall hanging. Common types of the ryijy are used for the sledges and as horse blankets. In recent years modern designs have been employed, but the ancient patterns continue to be copied and cherished.

The characteristic knot as well as the use of the tulip motif in examples of these rugs woven as early as the fifteenth century indicate a close relationship with the carpets of the Orient. It is believed that Scandinavians returning from the crusades brought them to the north, copied the style of weaving, and that settlers along the Finnish coast taught the art to the natives. Among the nationally known modern artists who have made the museum and collector type of ryijy are Maija Kansanen and Eeva Anttila, whose designs are delicate "textile paintings"; the work of Greta Skogster-Lehtinen and Margareta Ahlstedt-Willandt, is more realistic.

Weaving schools are conducted in Åbo, Ekenäs, the Handicraft Institute in Helsinki, the Home Industry Institute in

Weaving schools are conducted in Abo, Ekenäs, the Handicraft Institute in Helsinki, the Home Industry Institute in Tavastehus and in the textile division of the Central School for Applied Art in Helsinki. In the last, most Finnish designers receive their complete training. Some of the finest woolen textiles in Europe come from

Some of the finest woolen textiles in Europe come from the island of Åland. Here, where no other domestic animal can live, about 18,000 sheep are raised by the peasants to produce a wool that has a softness similar to that of Shetland. When Finland won its political independence after the First World War, the Martta Society, under the direction of Fanny Sundström, guided the island's home industry into modern channels and since then very many new designs have been added to the old patterns. For the most part, the motifs deal with seafaring life and windmills. In recent years flax raising has been revived on Åland, and linens of every kind are

again being made there. A charming traditional custom on the island is to weave the linen by June 10 and the following year, in March, when day and night are even, to spread it on the snow to bleach in the strong spring sun.

As lumbering is Finland's most important industry, every craft and type of manufacturing that involves the use of wood is highly developed. Prefabricated houses have long been in use in Finland. Paper is a major product. And the furniture output is limited only by the demand.

Furniture styles passed through the nineteenth century cycle which included Swedish Gustavian and Biedermaier. After the brief encounter with the Jugendstil, design was given a more national stamp by means of peasant ornament. Very little attention was paid to form until 1930, the year of the Stockholm exhibition. Functionalism became the fashion. Since then very simple designs have continued with a slight modification by some designers toward Swedish modern.

The use of luxurious furnishings naturally depends upon the number of wealthy citizens who can pay for costly woods, inlay and hand finishes by master craftsmen. As their number is few in Finland, every effort was made by the government to encourage design by employing the artists on public buildings. The Parliament House and the post office in Helsinki were among these. A good many board rooms of industrial firms and some fashionable clubs were furnished with exclusively designed textiles and furniture. From about 1928, shop interiors and windows provided another opportunity for the artist. The first store to recognize the commercial value of a contemporary interior was Stockmann, which later established a design department similar to those of the Swedish and French department stores.

A number of the architects are also furniture designers, while some artists design furniture only. In both groups there are names of international reputation. Elli Ruuth, a woman

architect, creates dignified forms which are extremely practical. Arokallio's imaginative style is represented in the ladies' lounge of the Parliament building. Gunnel Gustafson-Nyman's designs have grace and, perhaps because of her sensitivity to form, she has had still greater success as a designer of glass.

At the beginning of the twentieth century, A. V. Finch, a Belgian of half-English descent, a painter and worker in ceramics, came to teach at the Central School of Applied Art. For thirty years he trained most of the artists who have since brought Finnish ceramics to a standard equal to the products of other European countries. For his great influence, Finch is known as the "father of Finnish ceramics." (See Belgium.)

The most important porcelain works, Arabia, is the largest in northern Europe. Prior to the Second World War, twenty-

The most important porcelain works, Arabia, is the largest in northern Europe. Prior to the Second World War, twenty-five people were employed in the art department, ten of them designers of pottery, faïence and porcelain. Under the progressive direction of Kurt Ekholm, an artist whose own work is chiefly in stoneware, the workshops produce decorative objects and china of great variety and beauty. Tyra Lundgren, the Swedish artist (see Sweden), is known all over the world through her work for Arabia. She makes and applies the glazes which she uses for her figural, bird and animal pieces. Also celebrated is Elsa Elenius, who became professor of ceramics at the Central School and the successor to Finch. She developed an exceptionally fine glaze for her large decorative vases.

In sculptural ceramics Michael Schilkin ranks as one of Finland's greatest artists. He first came to the public's notice at an exhibition of the work of Russians living in Finland, which was held at the Hall of Art in Helsinki during the 1930's. In addition to his creative activity, Schilkin worked as a chauffeur. Arabia engaged him as staff artist and he has since devoted himself completely to the study and design

of ceramics, and has developed his own methods. His glazes are lustrous, often having a jewel-like surface, and his forms have remarkable strength and power.

Besides Arabia, there are two smaller ceramic centers which make inexpensive pottery. They are Kupittaan-Savi in Turku, and Kera near Helsinki.

Two glass factories turn out all of Finland's art glass, Karhula and Riiaimaki. Henry Ericsson's fine engravings of hunting scenes and dancers revealed the Orrefors influence, as did also Gunnar Einne's handling of northern subjects, such as a wolf attacking a reindeer. The glass designs of about 1940 have a feeling of simple ruggedness. The exception are the surrealist pieces by Alvar Aalto made for Karhula. The artist who is said most strongly to express the national character is Yrjo Rosola.

Metal work and enameling are less developed in Finland than textile, furniture and glass making. Since the deaths of two noted and versatile artists, Eric O. V. Ohrström and Henry Ericsson, this field awaits another revival. Ericsson, in addition to working in silver, glass and furniture, was a painter and also designed tapestries and rugs. At present Gunilla Jung-Pircklen and Frans Nykanen are among the younger artists who have a genuine feeling for the design possibilities of silver, and Nykanen is one of Finland's leading teachers in the art of the silversmith.

Interest in the graphic arts was also revived through the modern movement. The advertising field especially shows how strongly illustration and lettering have been influenced by it. An increasing number of talented young people are studying advertising art.

The progress of Finnish decorative art is remarkable in view of the many handicaps. Unable to build upon a traditional style except through the Swedish culture, the modern artists had to begin at the bottom. Fortunately, ancient folk

art could be joined with the modern principles to produce new forms. Although those forms were at first clumsy, the simple sturdiness and good taste of the present style have evolved from them.

ENGLAND AFTER MORRIS

AS THE strength of the Arts and Crafts movement faded in England, and Art Nouveau vanished without much regret, there arose an artificial cult which became such an important business that no one thought it was unnatural. When the country became antique conscious, every kind of old furniture was prized whether it was good or bad. As the old pieces became scarce, reproductions made by hand or by machine took their place as a matter of course. Thus, on the surface, the land of Voysey, Mackintosh and the others who had inspired the new style that was evolving on the continent had no young generation desirous of taking up the torch.

Actually, this was not so. While no vital modern movement existed, a few artists dedicated themselves to the continuation of the rebellion against the past. They were not appreciated by a public that had become indifferent after the dynamic personality of Morris was gone, but theirs were the hands that kept originality alive. There was, first, the architect, Ernest Gimson. He was born in 1864 and came to London when about twenty-one, an idealist and individualist who followed the Ruskin and Morris doctrines. He and his partner for a time, Sidney Barnsley, used the period designs for inspiration only, and were fine craftsmen. Retiring to the country, Gimson turned out some of the most sensitively conceived furniture that appeared in Europe in his day. He was not only a cabinetmaker, but had learned to model plaster, and understood metalwork and bookbinding. He loved woods. Some of his chests were of elm and ebony, some of walnut

inlaid with a darker walnut. His chairs had high, graceful backs. While Gimson recognized the importance of the machine, he took no personal interest in it whatever, saying, "Let machinery make its own machine buildings and its own machine furniture; let it make its chairs and tables of stamped aluminum if it likes; why not?" His own mission in life was to execute with his hands the designs he created. He died in 1919, a true artist who had received far less recognition than he had earned. His death marked the end of an era, for after 1918 most of the attempts to revive the handicrafts were ended.

In the field of textiles, Roger Fry was a pioneer of contemporary modernism. From 1912 to 1918 he made important fabric designs for printing. His Omega Workshops were noted for their bright purples and reds and for abstract patterns. Fry gathered around him a group of young designers who were especially interested in developing the possibilities of different textile materials and machine techniques. An outstanding figure in metalwork of Art Nouveau design was Murphy of the Central School of Arts and Crafts. In the field of furniture and interior design, the famous workshops of Ambrose Heal retained their distinguished position by judiciously introducing the best of what was new, and rejecting the bizarre. In the printing crafts, new high standards were set by the magazine *Imprint*, and by the outstanding work of the Corwen Press.

In a very large measure the lack of progress in modern design was due to the outdated schools and the manufacturers who did not realize that a good local industrial design school would be a benefit to their business. In some districts, certain crafts were taught in order to fill the local demand for workers, but without emphasis on art, while others gave inadequate technical training and overstressed the art factor. Well-balanced courses that combined design with technology

hardly existed. In 1899, Walter Crane had been instrumental in the establishment of a Design Department at the only government school, the Royal College of Art, for "the direct application of the arts to manufactures"; but until the thirties the standard of teaching there was inadequate to the great needs. In more recent years, however, the importance of craftsmanship has again been realized, as, for example, the value of hand weaving to aid the designer of fabrics for machine weaving. Also, the study of painting and sculpture is becoming a necessary supplementary subject in the general study of design. At the same time, the "art for art's sake" viewpoint has been definitely receding under a newly adopted system of technical and design schools.

In 1919, the government was at length able to establish an organization to further industrial art, for which plans had been made in 1914; but the carrying out of these plans was prevented by the war. The Board of Trade and the Board of Education founded the British Institute of Industrial Art. Principally this provided for exhibitions that would bring the products of designers and craftsmen to the attention of the consumer. Three or four exhibitions were held and a permanent collection of industrial art was started. Official support for this was withdrawn during the twenties owing to the financial depression. In 1929, a very stimulating exhibition of everyday machine-made articles was held under the title, "Industrial Art for the Slender Purse." This clearly brought out the need for better design in inexpensive utilitarian articles.

The Industrial Art Committee of the Federation of British Industries, founded in 1921, was one of the groups with an active interest in more modern art education. It also established an employment bureau for designers and furthered closer contact between the artist and industry. It was in 1915, as the first period of modern design was ending on the con-

tinent, that the Design and Industries Association was founded, with a purpose similar to the German and Austrian Werkbunde. Designers, manufacturers, dealers, artists, architects and printers were entitled to membership in order that creator and maker could better co-operate in the furtherance of their mutual interests. The association sent groups of representatives to Vienna, Sweden and Germany to study the progress of industrial design and applied art there, and lectures were held at home on developments in those countries and in France. The group, organized by some of the biggest names in the fields represented, grew slowly, contrary to expectations, and by 1928 had only 602 members. Nevertheless, the DIA was from the first an influential body because of its adherence to high standards. It has published yearbooks and a magazine has held exhibits, and established branches at half a dozen or so key points. The DIA has been vigorously active since the close of the late war. Criticism of it in some quarters is based on the group's preference for functionalism which is regarded as a little monotonous.

One of the first official reports to advocate improvement in industrial art was that of the Gorell Committee, appointed in 1931 by the Board of Trade. Briefly, this report dealt with ways and means of increasing the art consciousness of the average consumer. In 1934, the Council for Art and Industry, also appointed by the Board of Trade, formulated a program of public education in design appreciation, student design education, and the encouragement of good design in mass-produced products. Under the direction of Frank Pick, the Council's study resulted in a number of exhibitions of many kinds of products, and some reorganization of art training courses in textile, metal and pottery manufacturing centers. Other promotional activities were the competitions held from 1924 to 1933 by the Royal Society of Arts, for designs of furniture, pottery, glass and textiles; and the recognition given to indus-

trial art by the large exhibition sponsored by the Prince of Wales and the Society in 1935. That exhibition, entitled British Art in Industry, and held at Burlington House, was an undertaking similar to those arranged at the Metropolitan Museum of Art in New York beginning in 1929. Included in it were fabrics, glass, metalwork, advertising and commercial art, furniture, household utensils, window displays, plastics and bookbinding. Viewed from the publicity standpoint, this event was a success, but as many of the objects were conservative rather than modern, the propaganda value for the new style was negligible. An important recognition for industrial artists, given by the Royal Society, was the creation of the honor of Royal Designer for Industry. It is limited to forty recipients. forty recipients.

One of the earliest exhibitions of contemporary interiors was held at Waring and Gillow's in 1928. The rooms were dewas need at Waring and Gillow's in 1928. The rooms were designed by Serge Chermayeff, who had obtained most of the objects on the continent. As early as 1901 this firm had introduced the simple "club chair" famous throughout Central Europe. Other early exhibitions of furnishings were held at Heal's in 1936, and at Whiteley's in 1935. The Heal rooms were created by Maxwell Fry, Jack Howe, Marcel Breuer (see Germany and U.S.A.), Raymond McGrath, Christopher Nichelson, Hugh Casson, Christopher, Heal and Brian Nicholson, Hugh Casson, Christopher Heal and Brian O'Rorke. The British Industries Fair and newspaper-sponsored exhibitions of model homes also had a slight promotional influence.

The slowness of Britain's adoption of the modern style is sometimes explained with the theory that a wealthy and victorious nation has no great incentive for changing its established modes and habits. There is some truth in this. Certainly Austria, the greatest sufferer from the First World War, produced original and well-designed medium-priced decorative art in greater variety after 1918 than before. But,

to judge from the similarity of English and American experience, the delay was due in great measure to the manufacturers, who were reluctant to invest in the costly models, dies and merchandising of a new type of design so long as business was satisfactory. It was the depression which began in 1929 which forced American producers to take the plunge.

The economic effects of the Second World War have greatly stimulated activity in Britain. In 1944, the Council of Industrial Design and the Scottish Committee of the Council were organized by Dr. Hugh Dalton, president of the Board of Trade, as a direct result of postwar economic conditions. There is now full government recognition of the importance of industrial design and the status of the designer. The council, consisting mainly of industrialists and affiliated with the government, formulated a thoroughgoing program which includes the establishment of design centers according to industries, training improvement, propaganda activities, research concerning the work and methods of other countries, and placement of designers. The unremitting labors of those who, from Voysey on, insisted on the importance of the machine provided a base upon which to erect the Council. H. H. Peach, C. G. Brewer, J. B. Fletcher, C. H. St. John Hornby, F. E. Jackson, W. R. Lethaby and H. Stabler were among those who helped to build it.

Probably the most influential early member of the DIA was Frank Pick, the first chairman. He was head of the advertising department of the Underground Railway and a master of the commercial poster. By employing outstanding designers he raised the standard of British poster art to a new high. The Underground stations became veritable art galleries. Pick was instrumental in having all the London transport stations redesigned in the modern style by Alec Johnson. His poster work influenced typography, while the great

success of the new stations caused the other railroads to follow his lead.

In architecture, Britain had no early functionalists of the stature of Frank Lloyd Wright, Perret and Behrens. There was something of a hiatus until Wells Coates, Frederick Gibberd and others were given an opportunity. But there were the excellent rehousing projects, the remarkable growth of village garden communities, and, in London during 1914-18, a great increase in multiple apartments. It was in 1920 that the first functional building appeared, the Embelton pavilion. This created a furore of criticism. During the thirties, when Walter Gropius had left Hitlerian Germany, he and Maxwell Fry collaborated on plans for a modern village university near Cambridge. The buildings are long and low, have horizontal lines and are arranged with the economy of space and materials characteristic of functionalism. Broadmore Village is a pure expression of design for use, as are also Charles Holden's Underground stations. And one of the largest projects now under way, London University, will be a forthright expression of the machine age with no concessions to classicism.

Once the tenacious hold of the periods was loosened the industrial designer began to "arrive." Omnibuses, telephones, radios, kiosks and prefabricated houses began to come out of studio laboratories during the early thirties. R. D. Russell, Sir Giles Gilbert Scott, Brian O'Rorke and F. R. S. Yorke are a few of those who changed the appearance of all manner of everyday things. They chose steel, aluminum, plywood, and plastics, depending on which was best for the purpose, and created form through function. G. K. Chesterton's criticism of Morris that he had not improved letterboxes and lampposts did not apply to these later modernists.

Simultaneously with the appearance of functional buildings, automobiles and shops, there began a slow shifting of taste in decorative art. The conventional interior, generally com-

posed by one of the large firms which had its own design service and supplied all the furnishings, was first superseded by the more personal work of the interior decorator who selected objects from various sources for greater harmony and individuality. These later interiors were in the period styles and some still expressed an affection for Victorian overdecoration. The Arts and Crafts and Art Nouveau influences were visible until about 1918.

For many years the educational work done by C. J. Holme through *The Studio* and otherwise in behalf of decorative art was of inestimable value in acquainting the public with the contemporary style in its most livable aspects. The publication by *The Studio* of work done by good designers throughout Europe and in the United States has done much to establish the quiet harmonious taste that is characteristic of British modern interiors.

In 1911, Bakst's brilliant designs for the Russian Ballet affected patterns for textiles and wallpapers. After 1918, when the war reaction produced the Jazz Age, intense colors and splashy designs, often offensively bad, reappeared and remained until 1920, when the costumes and settings of the "Beggar's Opera" brought back quiet fabrics. But it was not until after the Paris Exposition in 1925 that simplification in furniture, room arrangement, pottery as well as design in general occurred to any extent. Inevitably, the first designs in the functional style were very eccentric and helped to retard public acceptance of the whole movement. Even good design was in for ridicule. William Brain's exhibited pottery, for example, was photographed in a newspaper because it was considered comic. A few enthusiastic people gave time and funds to the promotion of the new style, as did Lady Cynthia Mosley whose particular interest was pottery.

The English furniture tradition, coupled with national conservatism, greatly increased the difficulties of those who fought

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for contemporary decorative art. The furniture designers Ambrose Heal, Harry Peach and Hamilton T. Smith made great efforts to arouse interest in it. Their lectures, pamphlets and exhibitions received some public attention, but the manufacturers remained indifferent. Then some of the younger artists, among them Gordon Russell, joined the battle, and gradually honest, well-proportioned mass-production pieces appeared. Extreme functionalism was never popular in England, any more than was the tubular steel chair.

Two rooms designed in 1929 are representative of the conservative attempts of the time in the direction of modern. One contained a gray oak cabinet inlaid with ebony, pearwood and silver. All the furniture had straight lines. The second interior, a boudoir, had a yellow lacquered cupboard with an ancient Chinese design, and a yellow lacquered Chippendale dressing table. Both rooms were termed "modernistic" by the magazine that published the illustrations. In 1930, Britain took part in the Monza Exhibition of Industrial and Decorative Art, presenting a series of functional rooms arranged as a background for an Englishman's day. Eleven groups of furniture, textiles, pottery, metalwork and glass showed the earnest striving of the artists to eliminate period influence, but there were numerous eccentricities.

Probably the greatest single force in the spread of the new idea regarding furnishings was the change in living conditions. Simplified housekeeping, the servant problem, smaller quarters—all these did what lecturing and writing could not. The householder was, so to speak, driven into a consciousness of modern by way of the kitchen. The interiors of fashionable shops and hotels, breathing new luxury and comfort, and the settings of some American motion pictures contributed to the ultimate acceptance of the style in the living and bedroom as well.

The talents and ingenuity of Gordon Russell have for years

contributed toward raising the quality of design and work-manship in furniture. Mass production is his special interest. During the Second World War, as director of the Council of Industrial Design, he began to create the standardized Utility line of emergency furniture. Edward Barnsley is another master designer. His furniture has an aristocratic elegance due to beautiful proportions and the feeling of craftsmanship.

In textile design, the new style was first centered chiefly in Roger Fry's workshops. An early exhibition held at Holdsmith's Hall pointed sharply at the direction the industry would take. Austria, Germany and Sweden were new leaders in textile design, and thereupon Ambrose Heal urged English manufacturers to study their output. No great changes occurred until after 1925, when several large manufacturers commissioned designers to create frankly modern patterns. New weaving processes, silk screen printing and synthetic materials increased the variety and enrichment of fabrics. The Edinburgh Weavers were the producers of magnificent weaves on hand looms. During the early thirties there was a vogue for rough textures for upholstery and dress use, and for light tans and neutral tones. As the fad for geometric designs vanished, charming stylized flower prints in gay colors appeared, as created by Paul Nash, Eric Kennington and other modernists.

The long supremacy of English china was a decided handicap to the introduction of contemporary design in pottery. A world market was at stake. Gradually, however, painting was used less and less and even the conservative firm of Wedgewood introduced modern designs by the late Eric Ravilious. Unfortunately, the use of lithographic transfers and printed outlines, which are filled in with a brush in imitation of true painting, is still justified by the demand. The trend is steadily away from this, to an honest use of transfer printing which is not an imitation of painting. At the same time, increasing attention is directed toward fine materials

and textures which require no ornament. Keith Murray has been exceptionally successful with finely proportioned forms, while Bernard Leach does beautiful painting and has achieved superb glazes. W. Staite Murray, Michael Cardew, Pleydell Bouverie and Norah Braden all have an individual style in which Eastern influence has been subtly blended with a characteristically English feeling.

Like English china, the country's traditional silver is so renowned that the century-old forms will not be entirely discarded by the public in the foreseeable future. Nevertheless, competitions and exhibitions in the contemporary style and lectures and the study of continental work gradually brought about some recognition of the new dynamic simplicity. Scholarships enabled such exceptionally talented people as L. G. Durbin, R. H. Hill, and A. R. Emerson to study abroad for short periods. At the same time, a number of exhibitions sent to the United States, Germany and Argentina during the thirties created interest in the gradual change taking place in English silver design.

English glassware during recent decades has receded in importance to that of Austria, Sweden, France and Germany. Traditional design is still strong, but numerous manufacturers concentrate on original forms which require little or no decoration. James Powell and Son, makers of famous old White-friars, is outstanding in this respect, its production having the classic simplicity which is complete in itself. James Hogan, the late director of the firm, designed a good part of its output.

The first modern designs in rugs and carpets were geometrical. Solid colors then came into fashion, with emphasis on sand, beige and other light, neutral tones. Modern design was rarely used before the war, but a new trend toward stylized floral patterns has manifested itself.

The Second World War had an unexpected beneficial influence on design, in that the young artists who fought in

other countries had the opportunity of seeing at first hand the foreign costumes, colors and designs which previously they could find only in books. This contact is finding expression in today's applied art in Britain, giving new depth, color and beauty to design of every kind.

SUMMARY OF EUROPEAN DEVELOPMENT

THE MODERN movement began, paradoxically, with a return to the Middle Ages, in the most modern European country of the nineteenth century, which was England. As it denied importance to the machine, however, the arts and crafts rebellion was a short, although brilliant one. Had not continental architects and artists applied the ancient truths revived by Ruskin and Morris to the creation of an untraditional style, sincerity and unity in design might have vanished again for a long time.

The beginnings of the movement in the different countries on the continent varied greatly. In Belgium and Holland the architects early discarded the Gothic revival. France, Austria and Germany, each according to its own social and economic conditions and national temperament, developed a modern style out of their needs and tastes. Because of the greater ease of travel, the many new magazines and international exhibitions, the leading artists of one country quickly influenced those of the others. While the struggle against the historic periods and against ornamentation was waged, the first new forms were often crude and eccentric. When the uncompromisingly straightforward functional style emerged, it was both hailed and condemned; but out of it has evolved the simple modern style, so expressive of today's spirit and mode of living.

After the Paris International Exhibition in 1925, a number of countries which had been lagging behind in the movement,

discarded much of their traditional work, and joined the world trend. But everywhere from the beginning, the degree of national progress depended upon leaders, the strength of national promotional organizations, and government support. Interestingly enough, some of the smaller and less-prosperous countries were richest in those essentials.

Contrary to the opinion of many people, the modern style is not so international that the designs of one country cannot be distinguished from those of another. Naturally, the basic rules of simplicity and design for use applied to this mechanical era's materials and methods must result in similarity. But the new design of every nation has its own character, clearly discernible to the careful observer. While it is easier, for example, to tell Italian modern from the Finnish, it is also possible to know the more subtle differences existing among the designs of other countries. True, the distinctions are more marked in objects that are not severely functional in form.

We now come to the United States, largest industrial nation in the world and, perhaps for that reason, the least important in the handicrafts. Just how American mass production has come to be so outstandingly good in design, within the few years since the Paris Exposition gave the modern style its real start here, is a characteristic story of this country's enterprise and rapid success.

PART IV

THE UNITED STATES

THE DEVELOPMENT OF APPLIED AND INDUSTRIAL DESIGN

American families living in cities owned an odd assemblage of fashionable furniture. It included carved golden oak in the dining room, fringed armchairs and gilt side chairs in the parlor, and curly maple in the bedroom. Somewhere or other there was also a "cozy corner," which was basically a couch covered with something predominantly red. It was almost hidden by discreet draperies, and with cushions covered with burnt leather, embroidered crash or ruffled satin tops. A bulging lamp of painted china or pierced brass, sometimes with a hookah beside it, stood on a tabouret close by. Nobody could read by the lamp. Nobody used the hookah.

Wealth and the machine had created this jumble for a people who only a little earlier had loved plain, honest things. When the first mechanics and peasants arrived in the colonies from Europe, they had adapted their native furniture to fit a more primitive life. The many variations of the Windsor chair, the solid chests, simple pewter and pottery were fashioned for hard use. They were functional. In the south, the plantation owners furnished their mansions in the aristocratic English and French styles. Everywhere architecture had developed logically out of climatic needs and the life of the people.

At the time of the Revolution, 90 per cent of the people were still wearing and using the products of their own hands.

But industrialization was getting under way, for on the

occasion of Washington's inauguration a newspaper reported that he "wore a suit of clothes in which all of the processes except spinning were done in the mill of William Wadsworth of Hartford, who was a member of Washington's staff." Not long thereafter spinning was taken into the factory, too, and when that happened, the last of the home industries vanished.

The deterioration of taste and workmanship became very marked about 1880. Machine-made articles were very cheap and plentiful. American Empire furniture style was as bad as anything in Europe.

In this new country where artists were long regarded with some suspicion because what they did was "useless," the Morris movement received far less attention than it did abroad. But art conscious citizens, returning from England, felt strongly that there was a need for an American Arts and Crafts Society. Walter Crane was invited to lecture in Boston and other cities. Textile and wallpaper designers, influenced by Morris, studied plants and animals in fields and the zoo, instead of copying them out of books. As to the painters and sculptors, most of them studied in Paris or Munich, and some of them rarely came home.

The Arts and Crafts Revival

The first handicraft organization was founded in Boston when L. J. Johnson succeeded in forming the Society of Arts and Crafts of that city. This, in turn, was indirectly responsible for the establishment of more than thirty similar societies from Portland, Me., to Portland, Ore., and from Minneapolis to New Orleans. One of the Boston group's early secretaries, Frederick Allen Whiting, Sr., was also instrumental in the formation of the National League of Handicraft Societies. Another of its first members, Huger Elliott, was director of educational work at the Boston Museum of Fine Arts. He later became director of the Rhode Island School of Design, educa-

tional director of the Metropolitan Museum of Art and President of the Pennsylvania Museum and School of Industrial Art.

Shortly before, the arts and crafts had aroused the interest of a young woman whose life was dedicated to a social ideal. Jane Addams formed a handicraft group among the neighborhood pupils of Hull House in Chicago and, from that beginning, almost thirty settlement house courses have since been established. Among the five or six institutions where work of professional standard is done, Hull House and Greenwich House (New York City) probably have had the greatest influence on settlement house instruction.

In 1902, the middle west took what was then a revolutionary step to further American arts and crafts. This was the year of the Turin Exposition. The Chicago Art Institute, previously interested only in fine arts, wrote to fifteen hundred designers, and organized the first national exhibition of ceramics, china and metalwork in the United States. Even in Europe, there was at the time only one group of any consequence which held handicraft exhibitions. That was in Munich. And not until three years later did the Paris Salon open its exhibition rooms to the applied arts as well as to painting and sculpture.

An active group of ceramic artists was the New York Society of Keramic Arts, founded in 1892. Morris and Art Nouveau strongly influenced the members' work. Narcissus, nasturtiums, apple blossoms and other familiar American flowers, as well as geometric designs, were used for decoration. The society also exhibited pottery, jewelry, metal and decorative paintings made in other parts of the country. Whenever possible the artists went to Europe for study, as there were not as good ceramic schools at home.

Among the important work produced during the nineties, on this side of the Atlantic, were the lamps, jewelry and other 152

metal pieces by Leonide C. Lavoran, whose style was a restrained Art Nouveau; Losanti potteries and porcelains by Louis M'Laughlin of Cincinnati; Rookwood pottery by Maria Longworth—Storer of Cincinnati; Grueby ware made in Boston; Lenox in Trenton, N. J. Robineau was the trade name for the excellent work of Mrs. Alsop Robineau, Syracuse, N. Y. Gates ware was made in Chicago, Van Briggle in Colorado, Weller in Zanesville, Ohio, and Moravian in Pennsylvania.

The American modern designers best known abroad were the Tiffanys of New York City. The metal work and jewelry in naturalistic designs of Charles L. Tiffany, the father, won high praise in Europe. Louis C., his son, whose great interest was Asiatic art, began in 1872 to work with colored glass. His method was to set together small pieces in mosaic patterns for use in windows and chandeliers. Imitation of their work, which flooded the country, can still be found in many old houses.

In 1893, the year Horta built his Art Nouveau house in Brussels, Tiffany exhibited his favrile glass at the Chicago Fair. It was so sensational that it was copied all over Europe. The shimmering, metallic effect was obtained by means of layers of varicolored fluid glass, to which inlays of enamel, glass and semi-precious stones were sometimes added. The method was dropped when functional principles were better understood, for the glass lost its transparency. The importance of favrile glass lay in its originality and in the superior workmanship that entered into it. Each piece was handled as an individual work of art.

About 1880, Rookwood pottery began to attract national attention. Maria Longworth-Storer worked out her own techniques and for years Rookwood was the most famous American ware. In 1889 it was awarded the gold medal at the Paris Exhibition. It was also shown in Paris in 1900, and in Turin

in 1902, with a variety of decoration, including Art Nouveau. In 1907, among sixty-two pieces shown at the Chicago Art Institute, there were eight types, while a number of others were not exhibited. The crystalline glaze later developed further by several European factories was characteristic of the Goldstone type. One of the Rookwood designers was a Japanese, which accounted for the strong eastern feeling in the forms and decoration.

Today, no more than two or three of the early local arts and crafts societies are active. The Boston Society is one of them, and is still a leader. The disappearance of the others was due chiefly to rapid industrialization. Also, persuasive advertising and a lack of taste and appreciation caused even prosperous people to be content with mass produced furnishings. The greatest handicap was the failure of the government to start good design schools and to promote American applied art with the public.

After 1925 many new arts and crafts groups were founded. Design and workmanship have improved enormously. But one handicap for years was the reluctance of modern American artists to come out boldly with original designs; instead they adapted the European forms and patterns. Most early European modern work was bad, yet it was freely exhibited, and good national styles gradually developed from such beginnings. Today, the two difficulties the American craftsmen face are the very limited market and the high cost of living. To reduce the latter, an increasing number of artists work in the country; every state has kilns, metal and woodworking shops among mountains and in small villages. Examples are the nationally known Scheiers located in New Hampshire, the Folly Cove Designers in Massachusetts and Marion Voorhees in Connecticut. Scattered along the Pacific coast during the late war there were eight hundred potteries alone, most of which have since been closed down.

A purposeful promotional group for the arts and crafts is the Craftsmen's Cooperative Council. This was established in 1939 as a non-profit organization, starting with seven groups in various key localities. At present there exists nearly thirty groups, located from Maine to Florida and from Rhode Island to Oregon, representing about 10,000 craftsmen. America House in New York City is the central retail and wholesale sales outlet for textiles, pottery, and objects of glass, metal, wood and other materials. It is planned to open additional centers in key cities. The Council's publication, *Craft Horizons*, is an important, educational and inspirational guide for the public and for artists.

While the applied arts died in the big cities during the early years of the century, there was a backward rural section in the United States where the home industries, especially weaving, lived on. Cut off from industrial products by isolation and poverty, the Southern Highlands between 1895 and 1900 became the center for the first revival of American home industry. So successful was the venture that instruction in the simpler handicrafts has since spread to a great many areas. The movement originated with the churches. Educational workers were sent by wealthy city congregations into the Blue Ridge and Allegheny counties of Virginia, parts of West Virginia, Tennessee, Georgia, Kentucky and North Carolina, to educate the mountaineers and to help improve their economic condition.

The revival of weaving started at about the same time at Berea College in Kentucky, and in the neighborhood of Asheville, N. C. Dr. William G. Frost, president of Berea, let it be known that he would accept hand-woven coverlets in payment of tuition; he also held exhibitions of mountain handicrafts. The result of similar small beginnings in a number of localities was that hundreds of looms long ago stored in barns were put to use again, while hundreds of new ones were added. Elderly women who had not forgotten the craft and the tradi-

tional patterns became the teachers. Living lonely lives ever since they made the trek westward in covered wagons, these women as well as the younger generation eagerly took advantage of the offered opportunities. One woman rode twenty-five miles with her baby to get supplies for her weaving.

The revival stimulated sheep raising among the mountain-

The revival stimulated sheep raising among the mountaineers. There was also a return to vegetable dying. Gradually the home industries broadened out to include the weaving of drapery fabrics and table damasks and then pottery making, carving, furniture, hooked rugs and basketmaking. Old patterns have been collected and preserved, while modern ones are introduced as the circumstances warrant it.

Since 1928, the Southern Highlands Handicraft Guild has done excellent work toward raising the standards of design and workmanship. The Federal Government, too, is giving increasing aid to encourage handicraft instruction, principally through the Department of Agriculture, and the National Park Service and Indian Affairs of the Department of the Interior. As yet, the state of New Hampshire is the only one which has its own official agency for the promotion of the industrial arts and home industries.

On our island territory of Porto Rico, American designers, at the request of the insular government, established modern arts and crafts centers during the thirties. Ann Franke and Edwin and Mary Scheier were the first who went there to teach the natives cotton and linen textile weaving and general design, manual industries and ceramics. Henry Lacagnina designed beautiful modern furniture which was executed by his students in native mahogany. Porto Ricans are apt pupils in the crafts and their work, when it has been well designed, finds a ready market in distinguished shops.

The Mission Style

Such scattered activities were important because they kept alive the interest in the crafts, but their influence on American furnishings is not noticeable. On the other hand, the California Mission style which arose during the early years of the century, changed and improved the appearance of thousands of interiors throughout the country. Mission was wholly modern and fulfilled all of the principles laid down by the functionalists. It was more attractive than many of the forms called "modernistic" around 1920. Mission was so popular that it very nearly became the contemporary American style. Yet it failed in the end, giving way to the older periods.

The two most influential propagandists for the Mission type of home were Elbert Hubbard and Gustav Stickley. The more widely known was Hubbard (born 1856) also called the Fra because he ran his undertaking, the Roycrofters, as a "cooperative brotherhood." He had been a successful sales manager for a household product and later on became a journalist. In 1892 he went to London and there met Morris. Deeply impressed with the "man of great power," and especially with the work of the Kelmscott Press, Hubbard resolved to do fine printing himself. In 1895 in East Aurora, N. Y., he started his famous pocket-sized magazine, the Philistine, as a medium for his unorthodox ideas about life and social problems. The Philistine was strikingly printed, in the arts and crafts manner, with illuminated initials by Mrs. Hubbard. Within an amazingly short time, it became one of the widest read periodicals in the United States and its publisher an international celebrity.

Hubbard's first small workshop adjoined his home. With the help of a local carpenter, his printers erected the building and constructed some plain, solid furniture of the Mission type. Through his many lectures and articles, the Roycroft experiment soon won rapid public support. Orders for tables, benches, chairs, and andirons flowed in, necessitating larger and more substantial buildings. These Hubbard had designed by an architect as the focal point of a village charmingly landscaped. The Roycrofters constructed the buildings. An art department was added. A bookbinder joined the group and luxury editions of religious and classical works were produced, selling easily at from \$10.00 to \$100.00 each. A sculptor from Massachusetts was brought in to teach clay modeling. Gradually, knitting, rag-carpet making and metalwork were added as well as a mill for the manufacture of a high-grade paper. By 1901, three hundred men and women worked in the Roycroft shops.

The apprentices, coming from East Aurora farms and kitchens, were taught whatever occupation they preferred, from stone masonry to illuminating. Since it was Hubbard's belief that "the curse of the world is joyless labor," they permitted the workers to change occupations if they wished, and to learn as many as they could.

Gustav Stickley, originator of the so-called Craftsman idea, approached reform from a less personal basis. His aim was to improve taste, help revive the crafts and stimulate a return to the land. In 1901 he established the *Craftsman* magazine, which published plans for simple, well-designed houses as well as working drawings for Mission type and rustic furniture for the home craftsman. The houses were of concrete, timber, stone, logs, or plaster and wood, depending on location and use. In the Mission manner, they had beamed ceilings and small-paned windows. Wrought-iron lighting fixtures were suspended from chains. Burlap, homespun linen with stylized floral embroidery, tiles, wrought copper and brass, leather upholstery, and schemes of brown, yellow, deep reds and greens were characteristic, revealing the Morris influence.

The Craftsman business headquarters were in New York and Boston, with the workshops in Eastwood, N. Y. In 1909, Stickley established a farm where boys and girls were taught handicrafts by the apprenticeship method, under the supervision of working designers and artisans. It was his dream

that out of such instruction starting from the roots, a genuinely American decorative style would develop.

Numerous explanations have been offered as to why the Mission style vanished so completely. One of these is that the severe lines made it unsuitable for certain types of rooms. Nor did it lend itself to a display of wealth. Its greatest shortcoming, however, may well have been that fumed oak and leather seats did not appeal to the feminine taste for long.

Art Nouveau

While Hubbard and Stickley began their work for a return to simplicity and the handicrafts, the average American housewife was surrounding herself with Art Nouveau. While the best craftsmen worked in this style, it was also the golden opportunity for the manufacturer who had neither a knowledge of design nor conscience. Flowing line ornament appeared on stoves, baby carriages, and hat racks. Floral and figural decoration covered mirrors, jewel boxes, photograph frames, rugs and bedspreads. And the new social center of the day, the soda fountain, was elegant with chandeliers and sconces in forms of drooping leaves and blossoms.

Art Nouveau also appeared in a few public buildings, but with happier results. The New Amsterdam Theatre in New York is the most beautiful example of the style. It was designed about 1905 by Ballin, a young German draughtsman employed in the office of Herts and Tallant. One of the first buildings free of any style influence was the German Theatre, also in New York, built about 1905 by Eugene Schoen who had gone over to Vienna for further study at the Kunstgewerbeschule under Otto Wagner. This was the first American theater to have no stage boxes. Two beautiful Art Nouveau panels painted by the brilliant Alfons Mucha (See France) were the chief decoration. Another Manhattan theater with Art Nouveau paintings by the same artist is the Palace.

Mass Production and Period Palaces

Whatever American deficiencies were at this time in the domain of applied and decorative art the achievements of the manufacturers were the admiration of Europe. Mass consumption products, simplicity of design and operation had been essential in order to reduce costs. Such household conveniences as sectional book-cases, built-in closets, space-saving furniture and kitchen cabinets were commonplace in the United States years before they were in general use abroad. There, they were designed for the new houses that were built in the modern style, whereas the average American woman could buy them ready-made in a department store.

In Germany, especially, where architects, designers and manufacturers were working for a new middle-class style, American mass produced furnishings made a deep impression. Wilhelm von Bode, the famous director of the Berlin Art Museum, praised them elaborately. Adolf Loos planned his modern Café Museum in Vienna, in 1900, on a then prevalent style for low-priced American restaurants. (See Austria)

Inconsistently, and to the surprise of foreign visitors, the fashionable residential streets of our great cities were lined with French chateaux and Italian palaces. In slavish admiration of Europe, whole rooms were imported to give an aristocratic background to a poor boy who had become a millionaire. For the other end of the social scale there were the dreadful period furniture adaptations known later as "borax." And that awkward and cherished object, the misnamed Morris chair, stood in every living room where a tired man wished to read his newspaper.

As the United States emerged from the pioneer stage, foreign titles, fashionable foreign painters, and foreign architecture all helped to erase the memory of honorable ancestral log cabins and of the immigrant ship. Thus snobbism complicated the already precarious existence of the native artist and designer. This was the reason why Louis Henri Sullivan of Chicago became a more famous architect abroad than he was in his own country during his lifetime. Europeans eagerly absorbed the teachings of the man who should have been famous as the creator of a contemporary American style of building.

Pioneers in Modern Architecture

Sullivan, like many other good American architects, was a product of the Beaux Arts Academy in Paris. But unlike most of them, he had not come home as a copyist, with a strong preference for the French. Possessed of a highly creative as well as an honest nature, Sullivan saw that the time had come for an entirely new approach to architecture. He believed that building for the age of steel should be as sublimely right as Greek and Gothic had been in their time. As he realized that engineering was the foundation of modern building, he became an engineer. By 1881 he was a member of the firm of Adler and Sullivan, and began to build skyscrapers that looked like what they were; brick and stone covering a metal skeleton which supported modern machinery and space designed for commercial use.

Sullivan's success was considerable, and perhaps this country would have led the world in contemporary architecture, had not the World's Fair held in Chicago in 1893 been organized by men who preferred to display an imitation of Europe to the millions who came to the crude, sprawling city. Famous eastern and western architects were commissioned to design the buildings, and the fair blossomed out into a fantastic mixture of "palaces" that were reproductions and adaptations of the old European styles.

It was ironical that Sullivan's Transportation Building, designed simply as an exhibition hall and not a "palace," and

incidentally the only structure in which color was used, made the deepest impression on the European visitors.

After the fair, Sullivan's commissions decreased. Like his equally unappreciated Viennese contemporary, Otto Wagner, he has left only a few buildings for later generations to study and enjoy. It was principally through his writings and because he was the teacher of Frank Lloyd Wright that he became an international figure.

The French influence on American architecture had receded about 1900, but the effects of the Chicago Fair lasted into the 1920's. To many thousands of visitors, and especially to middle westerners, the magnificence of the old-world styles was what they wanted to live with for the rest of their lives.

Sullivan's pupil, Frank Lloyd Wright, born in Wisconsin in 1869, was designing modern houses in 1890. In 1910, the first books of his revolutionary work were published in Germany and a critic called him the "poet architect." He became a powerful influence there as well as in Holland, Belgium and France. His earliest style, in which he accentuated the horizontal line and introduced the low roof, was known as the "American style" in Europe at a time when in his own country he was regarded as a visionary. Wright's second style, conceived for concrete and stucco, was more massive, but was lightened by distinctive ornament. The third employed his invention of the pre-cast concrete slab incorporating an ornamental motif, thus creating a rich, all-over pattern.

There is no country whose architects do not honor Frank Lloyd Wright; but one of the last countries to do so was his own.

During the following two decades, while Wright was still regarded as an extremist at home, Ernest Flagg was solving the problem of design for steel construction in such sky-scrapers as the old Singer building on Broadway near Houston Street, in New York. Also, several Europeans brought over

the modern style as it had developed on the continent. Two young Hungarians working with Emory Roth designed the Hotel Belclaire in Manhattan, and the Hotel Bismark in Chicago was built and furnished by a Cologne architect.

After the First World War, Eliel Saarinen (See Finland) influenced tall building architecture through his beautiful untraditional design for the Chicago Tribune Building competition. This was in 1923. Being a world famous modernist, he gave prestige to the whole movement in the United States. In the applied arts he has raised the standards through his association with the Cranbrook Academy of Art of which he has been director since the early 1930's.

One of the earliest modern architects in the east was Ely Jacques Kahn, whose straightforward skyscrapers lined New York's west side business streets years before modernism had achieved respectability among building committees. Unlike bankers and public officials who approved plans for opera houses, banks, and city halls, the manufacturers who needed office and loft space were not inhibited by the prestige of European styles. They permitted their architect to erect functional, economical buildings. One of the finest structures by Kahn is the Squibb building in Manhattan. He was one of the first to create modern shops, display rooms, offices and department stores, and he is an industrial designer of note.

Raymond M. Hood, designer of the Daily News building in New York, and guiding spirit in the planning of Radio City was a brilliant early modernist. Hood, William Lescaze and Ely J. Kahn were the leaders of a small group that labored on many committees for the promotion of modernism in the applied arts. Lescaze, born in Switzerland, is a noted designer of residences and of tall buildings in a pure functional style. Other outstanding early modernists in the United States are William Wurster, San Francisco; John W. Root,

Chicago; and Ralph Walker, New York (born Providence, R. I.).

In California, the new style was used oftener in residential building than it was in the east. Leading architects there during the 1930's, in addition to Frank Lloyd Wright, were Richard Neutra, functionalist; R. M. Schindler, J. R. Davidson, Jock D. Peters and Rudolph Schaeffer, all with a strong individualistic approach to a problem. Except for Wright, all of them were Europeans. Yet, while their work ranged from uncompromising functionalism to a more graceful modern reminiscent of the Viennese, a decided American feeling gradually became visible in their designs for homes and shops.

gradually became visible in their designs for homes and shops.

As, during the twenties, the colossal skyscrapers arose in every industrial city, American building once again influenced European architecture. Medium high office buildings began to appear in ancient cities which had never seen houses of more than four or five stories. Only financial depression prevented more of them from going up.

Early Promotion of Modern Design

From about 1908 on, a few American educators and leaders in the art world began the attempt to interest industry and the public in design improvement for manufactured articles. They lectured and wrote many articles and pamphlets on the subject, but for a long time their efforts reached small and ineffective groups. Their message was not heeded and the pioneering spirits were forgotten. But men like John Cotton Dana of the Newark Museum, in New Jersey, made a deeper impression. Possessed of vision, energy and enthusiasm and aided materially by the resources of an institution, they gradually succeeded in breaking down indifference and antagonism. The First World War gave them their great opportunity, when all the foreign designers returned to their own countries, and the American manufacturers suddenly realized that hardly

anyone trained at home was able to do work that was of any practical use. It was then that the few progressive museums could assist industry in the uphill climb that lay before them. The problem at this point was not one of style, but first of all of industrial art training for American youth and of design appreciation by the manufacturer for his own good.

Thus it happened that it was not the architects and the designers of applied art who introduced modern in the United States. Long before it could appear in furniture, china and interiors, the art directors and executives of advertising agencies were alert to its possibilities, and made use of it. The boards on which outdoor posters were pasted were the first modern exhibition galleries.

The artistic commercial poster, influenced by Japanese painting, originated in England about 1895. This developed into the so-called "flat" poster which reached its height in Germany before 1910, and whose particular genius was Ludwig Hohlwein (see Germany and England). He put into them a psychologically conceived selling idea; simplicity which conveyed the idea at a glance; intense color and high artistic value.

In the United States, certain products and services were nationally known through poster personalities. Everybody knew that "Phoebe Snow" traveled on the Lackawanna Railroad and that an energetic little figure personified the Edison Company. Interest in beautiful posters was so great that people collected them. One American had 10,000 posters from a number of countries, in a specially built room.

The magazine articles of Ernest Elmo Calkins, advertising executive, helped to acquaint artists with the poster work of Europe, where a number of famous fine arts painters were engaged in it. He commissioned Hohlwein to make two for him, for a tobacco product. By 1910, a few artists in New York had joined the Society of Poster Friends in Germany,

and a few years later its publication, *Das Plakat*, could be had in book stores, art schools and libraries. The "flat" poster style was successfully used by leading illustrators for magazine and book covers.

In 1912, a small group of German and Austrian artists opened a studio in New York, under the firm name of I.A.S. (International Art Service). They had considerable influence on the modernization of advertising art. Besides designing many "flat" posters they introduced unity into advertising by creating a basic design for a firm's letterheads, packages, shipping labels and even the salesman's calling card. They insisted, and did so successfully, that all designs should be signed by the artist. Public credit for an artist or designer had until then been unheard of. In 1914, a member of I.A.S. proposed the formation of a national organization which would embrace all groups interested in the graphic arts, resulting in the founding of the American Institute of Graphic Arts. For the past thirty years this group has had an ever increasing influence upon every aspect of that branch of the arts and crafts.

In 1914, with the enthusiastic co-operation of Dr. James P. Haney, then director of Art in New York City High Schools, the I.A.S. and a group including a lithographer, photo-engraver, paper manufacturer, letterpress printer and a number of commercial artists, organized the first exhibition on the making of a poster, for showing in a high school. Posters actually in use were taken to illustrate the steps of creation and production. Dr. Haney was one of the indefatigable early leaders in art education, and one result of his labors was that poster design became a major subject of art instruction all over the country.

An equally influential undertaking was the first national poster competition. It was organized about 1914, under the sponsorship of the Newark Library and the supervision of John Cotton Dana. Designs were submitted by artists from all

parts of the United States. An exhibition of the best work later traveled the country.

To the vision of John Cotton Dana every American with interest in applied and industrial art is indebted. Dana was librarian in Newark in 1902, and in 1909 founded the Newark Museum in the midst of the library. His famous slogan was "beauty has no relation to age, rarity or price." His ideas were so revolutionary that for years most other art museums refused to follow his "commercialism." One of the first Newark Museum exhibitions was of New Jersey clay products. This included bath tubs, together with the sources of the designs and the processes of their manufacture. In 1912, Dana imported an exhibition of modern German decorative and industrial art. Except by modern designers, this was considered grotesque and without value so far as American industrial art was concerned. Yet Dana continued to pioneer.

Even in 1922, on the occasion of a second German-Austrian exhibition, he was obliged to say, "Our art museums do not teach us to recognize good art and to like it; they do not help to improve the design of our manufactured products; they do not encourage such of our people as are born with talent or genius... to give their lives to the development and training of that talent or genius."

Dana's influence in art education was considerable. In Newark, children and adults became acquainted with the architecture and textiles of their own state, and with subjects as varied as photography, classic sculpture and painting, and the industrial art of South America. Traveling and loan exhibitions brought the new conception of a museum's functions to numerous other cities.

After Dana's death his chief assistant, Miss Beatrice Winser, continued the museum's work in his spirit until her own death in 1947.

Another untiring worker in the cause of industrial art has

been M. D. C. Crawford, design editor of Women's Wear, and for long the Research Associate in Textiles for the American Museum of National History. His lectures, articles and inspiring work with schools, manufacturers and artists furthered design improvement, and the employment of American designers. He was the first to use Indian motifs for textiles. In 1919, Crawford organized a large exhibition of industrial art, including the processes of manufacture.

C. A. Clifford, publisher of several magazines for the upholstery trade, was one of the first to crusade for a law to protect industrial art designs against piracy. Thirty-five years have passed since then, with increasing strength behind the effort, to be sure, but thus far only one visible improvement, if it is that, has been achieved. A store no longer advertises, "We copied these from Paris."

A different kind of contribution was that of Frank Alvah Parsons, director of the New York School of Fine and Applied Art. Parsons was one of the most severe, yet constructive critics of the current taste in advertising art, women's clothing and interior decoration. For years his caustic wit and corrective ideas gave a healthful jolt not only to his students but to conservative social, professional and trade groups all over the country.

Early Use of Modern

The "flat" poster remained in vogue until cubism started a new trend in design generally. The first popular publication to use covers painted in the "flat" style was *Colliers*, and for several years these were famous. Among the artists who were notably successful with the technique were Will H. Bradley, Fred Cooper, Edward Penfield, Louis J. Rhead, C. B. Falls, George French, Lambert Guenther, H. E. Martini and A. Treidler. Louis Fancher specialized in theatrical posters.

The leading fashion and interior decorating magazines, led

by the Condé Nast publications and by Harper's Bazaar, were the next to sponsor modernism in commercial art. Vogue, Vanity Fair, and House and Garden had beautiful covers painted in a "flat" technique with a French influence but with a wholly American whimsicality. The daring imagination of Heyworth Campbell, art director for these periodicals, were responsible for bringing such artists as Helen Dryden, Plank, Lyendecker, Le Pape, Joseph Platt, and Eric (Ericson) to their pages. Drian (of Paris) was for years the inspiring creator of Harper's Bazaar covers. As art director and designer of many magazines, Campbell has influenced the appearance of every type of publication in the United States.

Decidedly modern were the small literary magazines which were published chiefly for the more radical intelligentsia from about 1914. Some of these were hand printed. The Dial, the Little Review, the Quill, The Pagan, Bruno's Weekly, and the Playboy published by Egmont H. Arens, were interesting experiments in modern publishing. Their artistic influence was slight.

During the period ending with the First World War, while advertising reflected the trends of the modern movement in Europe, there was hardly a ripple of interest in the new style on the part of interior decorators. The inconsistency of this situation, in contrast to American leadership in modern conveniences, was puzzling to many designers from France, Austria and Germany. Telephones, electric irons and toasters, rushing hot water, high speed elevators and automobiles, were commonplace possessions of almost every family. Yet the homes were filled with European styles of furniture, of centuries earlier.

Among the first American decorators to design exclusively in the modern style, were E. H. and G. G. Aschermann, who had come under the influence of Josef Hoffmann in Vienna. One of their typical interiors, of 1912, had white walls and

rose painted medallions, white chairs upholstered in red velvet, a white table with a black top, a bright red rug, a lamp with a white base and black silk shade. Another scheme had orange upholstery and rug, with white furniture and accents of gray and green.

Anton Hellman's colorful interiors, Bertram Hartmann's batiks, the wood sculpture and embroideries of the Zorachs, were among the important beginnings of American modern. Hazel L. Adler's book, *The New Interior*, published in 1912, explained the modern principles of decoration and contained examples of non-period rooms, whose bright simplicity had an adaptability and charm which the Mission style could not achieve.

About 1914, isolated undertakings indicated that there was a rising interest in better interiors. There was the amusing Exhibition of Bad Taste, held in New York City. Gilded banjos, mustache cups and a Venus de Milo with a clock in her stomach were among the displays. The effort probably produced some good results; but if so, then the following suggestion taken from a metropolitan newspaper in 1947 is the more discouraging. The answer given to a headline which asks, "What to do with the old Stradivarius?" is, "Take the front off and glue in several tiny pieces of wood to serve as shelf rests. Then place narrow slats of wood across rests . . . if the violin is in bad condition paint the whole thing white, as did Mrs. . . . who has filled it with small white pots of ivy."

About 1913, Joseph P. McHugh and Son of New York City began to deal in modern rugs, drapery fabrics and wicker furniture. And the Austrian Workshop (Rena Rosenthal) where American and Hungarian artists decorated furniture and small objects, held a modern exhibition at the Prang Company display room, where art teachers could view the new style.

The publicity which was given modern work was also

sporadic. Occasionally, the important art, fashion and women's magazines, and the upholstery, wallpaper and textile journals published articles concerning modern trends in Paris, Berlin and Munich. The newspapers sometimes printed illustrated feature articles. People generally regarded the forms as outlandish, but color and simplicity were steadily gaining ground. The middle-class home during these years had oatmeal wallpaper and Colonial reproductions upholstered in harmonizing tones of brown, blue or green. A favorite color scheme was a neutral blue and gold. The costly interior was the period room; at first pure in style, later with a mixture of well-selected pieces of French, English and Italian style.

The small group of modernists had a fashion of their own.

The small group of modernists had a fashion of their own. In almost every bare studio could be seen a few pieces of American Indian pottery or a small Indian rug, a reflection of the primitive style then in the ascendency in Paris. Hardly anywhere else was Indian art used in American homes. People who visited luxurious modern European houses after the First World War were astonished to see that Navajo rugs were prized there as great treasures.

prized there as great treasures.

In 1913, modern Viennese and Paris textiles first came to the United States. John Wanamaker's store imported a collection of dress silks by Poiret, and published full page advertisements about the beautiful fabrics. Also shown was a collection of Wiener Werkstätte fabrics. But the conservative American woman found the gay designs far too extreme for dress wear. The importers turned them over to the upholstery department where they were sold, because bright fabrics for interiors already had won some consumer acceptance.

Certainly, the fundamentals of the modern style were being absorbed by the younger generation, and had there been a national movement to encourage it, American designers would very soon have had a larger market for their work than did the Europeans. The interiors that were seen on the legitimate

stage and in motion pictures were influencing taste in furnishings more than anything else. As early as 1910, a pantomime with unrealistic backdrops and hardly any properties had come to Broadway from Germany. Charles Coburn's Chinese play, "The Yellow Jacket" was performed on an almost empty stage. The imaginative settings of Gordon Craig, in England, were influencing every rebellious "little theater" struggling for life in a basement. Presently, one of the modern plays with modern décor became a season's hit, and the new ideas about the drama, including settings, entered the large theaters. The designs by Lee Simonson, Robert Edmond Jones and Norman Bel Geddes were as much discussed as the plays.

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The German film, "Dr. Caligari's Cabinet," with its abstract settings and revolutionary methods of lighting and photography, was the inspiration for many modern Hollywood productions. Then there followed the modern interior decorator who gave spaciousness to settings and used the new furniture, lamps, decorative objects and carpets. In 1916, the Russian ballet had some influence on fabric design; more intense colors and large motifs were used. During the same year, the Century Theatre in New York City had a sensational modern room with no red velvet and gold, but with a simple block printed wall fabric designed by Jacob Asanger.

The motion picture palaces, having reached the ultimate in

The motion picture palaces, having reached the ultimate in crystal, marble and gold, now began to use modern for powder and rest rooms, but some of them looked more garish than the old ones they replaced. Some smaller houses where selected programs were offered for intellectual audiences, were built in the functional style.

After the First World War, Ralph M. Pearson of New York encouraged modern by opening a sales center for hand-hooked rugs designed by already noted painters, sculptors and designers, among them Thomas Benton, Nura, George Biddle, Alajalov, and Ruth Reeves. The rugs were made by country

people in Maine, who had carried on this home industry for generations. Every rug bore the designer's signature.

Artists from the Defeated Countries

As modern entered upon its second phase in Europe, economic conditions in defeated Austria and Germany forced the migration of a number of architects and designers to America. Most of them remained in New York, others settled in California. They all worked in the new style, as no other one was being taught in those countries. While their work had very little influence at first, it gradually attracted notice because of its novelty and distinction. One of the first artists to arrive was Winold Reiss, decorative painter from Munich, who designed several New York restaurants in a new vivid manner; he also established a school. Others were Hans Flato, now famous jewelry designer; Jacob Asanger and Lucian Bernhard, noted poster designers; Marianne von Allesch, who had conducted her own glassworks, and today works in ceramics. From the Wiener Werkstätte (see Austria) came Vally Wieselthier, noted creator of ceramics and Lobmeyer glass; Frederick Kiesler, functional architect and designer; Wolfgang Hoffmann, son of Josef Hoffmann, and his wife Pola; architects Frederick Kiesler, Erich Mendelsohn and Josef Urban; Paul Frankl of Vienna, who originated his much copied skyscraper furniture in New York. From Hungary came Ilonka Karasz, whose textiles and potteries in the Austro-Hungarian style were among the earliest modern designs in the United States. Gilbert Rhode, creator of many distinguished functional interiors and an industrial designer, arrived several years later, as did Paul L. Wiener, whose work was a modified functionalism. Emmy Zweybrück was a visiting lecturer from Vienna

Josef Urban's career was a brilliant one. At first a designer of interiors in this country, he became the creator of the lavish Ziegfeld Follies stage settings. He was the architect of the Ziegfeld Theatre, the Hearst Publications building, the New York School of Social Research, the Congress Hotel, Chicago, and designed fashionable roof garden and supper clubs. In 1919, the Wiener Werkstätte opened an American agency in New York of which Urban was the manager. Looking over the agency's catalogue today, one wonders why the superb silver, ceramics, leatherwork and textiles by such artists as Hoffmann and Peche did not find buyers. In 1947 their forms and patterns are very familiar.

Another outstanding designer, cabinetmaker and interior architect, Kem Weber, came to the United States to work in the German pavilion for the Panama Pacific Exposition. He never returned, and has long been one of the most important architects and designers of interiors in California.

In New York City the Austro-German artists were so active trying to promote modern, during the early postwar years, that when Audac, the first organization of designers was founded, the meetings were sometimes conducted in the German language. Most of the members had migrated from or had studied in Vienna or Munich.

Kem Weber relates a story which illustrates how precarious the foothold of the modern movement in the United States then was. Together with Frankl, Frederick Kiesler, Donald Deskey and Lee Simonson, he was bound somewhere in a taxicab. As the driver turned a corner on one wheel, Frankl leaned over and said, "Listen, old man, if you spill this bunch there will be no modern art in America!"

The first connection most of the foreign European designers had with the United States was Rena Rosenthal, the first American to import modern applied art. As the purchaser of exclusive articles for a conservative clientele, Mrs. Rosenthal was known to most of the artist craftsmen of Germany, Vienna and Paris. From her shop, many artists branched out to

become designers for manufacturers and department stores. Others opened independent workshops.

The Paris Exposition Stimulates Development

The International Exposition in Paris in 1925 was the event which broke the stranglehold the periods had on American interior decoration and the furniture manufacturers. Thousands of American tourists visited the Exposition. Soon after it, conservative decorators began to experiment with modern. Clients asked for arrangements and fabrics such as they had seen in the exhibitions. Before 1925 among the first conservatives to use some of the new fabrics and furniture were Elsie Cobb Wilson and Elsie de Wolfe.

To American designers, the fact that their country was not represented in the exposition was a shocking thing. When French officials requested examples of "original national" applied art in the modern style, Washington replied that the United States had nothing to show. It is true that the work of one of the greatest modern architects, Wright, would have made an impressive display. But it was also true that only a few Americans and the recently arrived Europeans produced the sort of metal, furniture, ceramics, textiles, glass and other articles that filled entire pavilions representing other countries. The United States had a modern building at the Paris Exposition in 1937; but neither that nor the World's Fair held in New York in 1939, contained an American applied art exhibit.

A commission was sent to Europe during the Paris exposition. It was found that the period styles, which were still the backbone of the American furniture industry, had long ago given way in half a dozen continental countries to an entirely new conception of design. The result of the Commission's report was a feverish rush on the part of the manufacturers of all kinds of articles to produce something "modernistic." As no

schools taught the style, and only a very few artists were familiar with the principles, the designers hastily imitated European work. Very soon the cubist and futurist influence appeared in furnishings with no regard for proportion or common sense. The two opposing schools, the decorative or Viennese and the functional, were not understood. To many adapters the fundamental idea seemed to be to avoid everything natural. The flood of bad modern which then poured from the factories, doubtless prevented the style from being accepted sooner by the American public.

Realizing that ill-considered production had been an error, the manufacturers joined with the museums, architects and other groups to develop American contemporary design. To do this required years of labor in the fields of art training, production and merchandising.

The first large exhibition of contemporary decorative art was sponsored by Macy's in 1927 with the title, "Art in Trade Exposition, to illustrate the new alliance between the manufacturer and the fine arts." The displays included interiors as well as individual decorative objects, paintings and sculpture. Austria was represented with a boudoir by Hoffmann; and France with rooms by Leleu, Dufrêne and D.I.M. Bruno Paul had designed the German room; Italy's interior was by Gio Ponti, Sweden showed Orrefors glass as well as ceramics, silver, pewter and textiles. Among the American exhibitors were such nationally known names as Kem Weber, Eugene Schoen, Ralph T. Walker, Peter Mueller-Munk, Walter von Nessen, Buk Ulreich, Henry Varnum Poor, William Zorach, Carl Walters, A. E. Bagge, R. Guy Cowan, Hunt Diederich, Maurice Heaton and Robert Locher. Thousands of visitors poured into the exposition daily. Afterward, some modern furniture and accessories by American and European manufacturers began to appear on department store floors in the large cities.

In 1928, Lord and Taylor held an exhibition of French modern, arranged by Ely J. Kahn, and sponsored by socially prominent patrons. Nine ensembles, in the characteristic luxurious manner of France, presented some of the best work of distinguished designers. Ruhlmann, Dunand, Sue et Mare, Vera Choukhaeff, Chareau, Jourdain, Madame Cuttoli of Myrbor and D.I.M. were the exhibitors of interiors. Among people who could afford costly furnishings, this exhibition had some influence, as had also the *Ile de France*, *Normandie*, *Europa*, *Bremen*, the remodeled *Leviathan*, and other new luxury liners.

French modern was for years predominant in the United States. Wealthy travelers and the important decorators went to France every year and ordered custom-made modern furniture, as they formerly had period pieces. Jules Bouey was the outstanding French designer in the United States. He created not only furnishings and interiors, but also beautiful iron work for Ferrobrandt, the American agency of Edgar Brandt of Paris.

The sensation of the holiday season of 1932 was the opening of Radio City Music Hall on December 27th. For months the public had been prepared for a new kind of magnificence. Some of the city's best known modern artists designed the textiles, murals, sculpture, furniture and carpets. Donald Deskey was responsible for the design of the interiors. For weeks after the opening the opposing sides of admirers and critics of the Music Hall decoration waged battles over dinner tables and in the newspapers. Three over life-size sculptures cast in aluminum met with the harshest condemnation, especially "Eve" by Gwen Lux. They were removed, but later returned to their original places. An amusing incident occurred a few hours before the doors were opened on the first night. Ruth Reeves, the designer of the wallpaper, had signed her original drawing. Arriving at the theater for a check-up, she was accosted by a fellow-artist. "You certainly have got your name

all over the place," he snapped. Appalled, she saw that her signature was on every repeat. With the assistance of another artist, she painted out her name until, surveying the space that had to be gone over before the opening, she had to give it up.

Since then, the Music Hall has done considerable missionary work for modern. It creates an atmosphere of quiet beauty for great masses of people. To theater-goers accustomed to marble stairways and crystal chandeliers, it was a revelation of simplicity and the wizardry of machine-made materials and forms.

The encouraging progress that was now apparent, especially in industrial art, was due in large measure to the intensive educational work a few museums had been doing for years. Of these, the Metropolitan Museum of Art in New York was the most active. Unlike most, it has a charter, written in 1870, which states that the Metropolitan is to further "the application of arts to manufacture and practical life." The matter of an appropriation and the trustees' approval for such work were therefore no problem.

To encourage use of the collections, the museum first exhibited manufactured articles whose form, texture or construction had been the result of such study. As the producers realized the museum's practical value and the prestige of an exhibit, entries were limited to those "made in all their parts in the United States." The next requirement was that "all objects be both American designed and American made." Thereafter, from about 1919, the rule regarding museum study could be dropped.

The emergency of the war resulted in the passage of a law granting appropriations for industrial art training to vocational schools. During the same year, the Metropolitan intensified its efforts by appointing as Associate in Industrial Arts, Richard F. Bach. At the 1917 exhibition twenty-five manufacturers were represented, including Louis Tiffany. In 1919,

ninety manufacturers showed three hundred separate exhibits. Included were Erskine-Danforth furniture and Edward D. Caldwell & Company's silver. In 1920 several magazines exhibited, typographical design was included, two advertising agencies were represented and, for the first time, stage settings were shown.

Numberless lectures, radio talks, articles, pamphlets, as well as conferences with industrialists, brought the subject before teachers, trade associations, labor organizations, art associations and the public. The aim was, and it has since been realized, to make the museum an institution as familiar and useful to the community as the public library. For a long time it was difficult to persuade some out-of-town manufacturers to let their artists go to New York to study. "We pay our designer to design," they would say. "Besides, he may go to a night club instead of working."

"What if he does," was Bach's reply. "He may get an original idea at a night club or from a Fifth Avenue window, that he would not get sitting at his drawingboard."

The museum began to connect manufacturers with the designers, a service which has become one of the most helpful the museum offers. It is not uncommon for an artist in one section of the country to receive a commission from a distant producer who, except for this contact, would never have heard of his work.

In 1925, nearly 1,000 objects were shown at the industrial arts exhibition, including glass, furniture, jewelry, lace, leatherwork, metalwork in brass, copper, iron, pewter, silver, porcelain, pottery, rugs, silver and goldsmith work, textiles and wall coverings. An Advisory Committee representing the manufacturers had now been appointed to guide the museum staff through the multifarious problems of production and ethics peculiar to individual industries.

Until now there had been no emphasis on the furthering

of a national style. And it was not until 1929, when "modernistic" zig-zags and triangles were flooding the market, that the Metropolitan organized the first exhibition of contemporary American design under the title, "The Architect and the Industrial Arts." The problems connected with such an undertaking were so enormous that a Co-operating Committee of Architects was appointed to arrange the exhibition, assisted by the Advisory Committee on Industrial Art and the Museum Staff Committee. As almost no American modern design existed, the architects designed the objects themselves and had them executed by manufacturers, or by craftsmen in the applied arts. The hard-working architects' committee consisted of Raymond M. Hood, Ely J. Kahn, John W. Root (Chicago), Eliel Saarinen (Detroit), Eugene Schoen, Josef Urban, Ralph T. Walker, Armistead Fitzhugh (landscape), and Leon V. Solon (ceramist).

Included in the thirteen group exhibits were a bath and dressing room with mirrored wall; a woman's bedroom with a dressing table and chair of pewter; a business executive's office with fabrikoid walls and aluminum furniture. Each object had either been already incorporated in a manufacturer's line or it was a model that could be made in volume if public interest warranted it. On the first Sunday of the exhibition's opening, 10,000 people visited it. Instead of the scheduled six weeks, the showing was extended to six months.

An important result of the undertaking from the standpoint of stimulating design, was that it caused "familiar utensils to be reseen from a new aspect, and found to need complete redesign." Much of what was shown was not perfection, but the purpose of the exhibition was not to present flawless examples only; it was to contribute toward the development of an American style.

Two years later, in 1931, the Metropolitan held its second exhibition of modern. Within the time that had elapsed since

the first one, a serious financial depression had occurred; but it had not resulted in a frightened return by manufacturers to the safety of the periods, but mainly in a healthy reduction of second-rate production. The largest exhibition, held in 1934-35, was organized similarly to the first. Two hundred and thirty-seven manufacturers and designers worked on it. The more than one thousand objects shown were American made and American designed, and had been produced in every industrial center in the country, for every class of consumer. Included was a line of furniture designed for a mail order house, demonstrating that the new style was now within reach of the small income family.

The profession of industrial designer was developing into importance. For the first time Raymond Lowey and Walter D. Teague were exhibiting. Some others already well known were Gilbert Rhode, Walter W. Kantak, Walter von Nessen, Waylande Gregory, Russell Wright and Paul Lobel.

The co-operation of the manufacturers whose exhibits were not yet in production was especially praiseworthy. They ran the risk of piracy, involving loss of an investment in fees, tools, dies, labor and overhead. It is well to say here how serious a handicap to American design is the lack of a protective law. Because of it, artists decline to bring their best new work before the public. Designers of other countries, too, are reluctant to present their work in the United States. In October, 1932, Les Echos d'Art published a startling article on this subject which reads in part:

We have often complained about the procedure of certain American artists and industrialists who shamelessly copy the works of our French decorateurs, whether furniture, textiles or pottery. Many protests have been raised . . . several times our Minister of Commerce has objected officially with no effect . . . American law apparently does not allow the prosecution of such imitation . . . The scandal became so great that the Société des Artistes refused to take part in the very important Chicago Fair. . . .

Words cannot speak more earnestly in favor of a protective law for creative designs.

While the Metropolitan and the Newark Museums began very early to further industrial art, other institutions and organizations put similar programs into action during and after the First World War. The American Federation of Art, founded in 1909, included industrial art in its plans. Especially effective was the work of the progressive Architectural League of New York, founded about 1890. The co-operating painters, sculptors, architects and manufacturers worked for the advancement of architecture, the fine arts, applied and industrial art. The annual exhibitions of work from all parts of the country were important events in the city.

Among the curators who devoted many years to the furtherance of industrial art was Stewart Culin of the Brooklyn Museum (New York). In 1918, the Department of Ethnology of the Brooklyn Institute of Arts and Sciences, which Culin then directed, began to assist designers. He collected textiles from the industry and loaned them to museums and individuals. Professor Charles R. Richards, of Pratt Institute and Teacher's College, wrote several books on industrial art and was appointed commissioner to the Paris Exposition in 1925. Others who were leaders in the movement were Royal Bailey Farnum, executive vice president of the Rhode Island School of Design; Dr. Clark Wissler of the American Museum of Natural History (New York); Henry Turner Bailey, Cleveland Museum of Art; Leon L. Winslow, director of Art Education in the Public Schools of Baltimore; Herbert J. Spinden, curator of Archeology at the Brooklyn Museum and director of the Museum of Natural History; C. Valentine Kirby, director of the art education of the State of Pennsylvania; Henry W. Kent, secretary of the Metropolitan Museum, who conducted the museum press and received prizes for his craftsmanship; and Frederick Keppel, who as president of the

Carnegie Corporation expanded the institution's activities into all branches of art.

A number of museums in the middle west and east adopted industrial art education plans, their scope depending on funds and local needs. The Minnesota Institute of Art, the University Museum of Philadelphia, the museums of Chicago, Cleveland, Toledo, Baltimore and the Field Museum of Natural History in Chicago, as well as the Smithsonian Institution all had varying programs. These ranged from pamphlets and technical exhibitions through model apartments furnished with locally manufactured products. The Syracuse Museum of Fine Arts, a pioneer in work with the schools, in 1932 founded its internationally known annual National Ceramic Exhibition in memory of Adelaide A. Robineau. The tenth of these included objects from the entire western hemisphere. In 1924, the National Museum of Engineering and Industry was a development of considerable importance. With the main collection in Washington, branch museums were to be established in other cities.

The founding of the Museum of Modern Art in New York City was a milestone in the development of the style. Every phase of art is included in the institution's programs, from architecture and painting to mass-produced household utensils, the theater and the motion picture. At present, circulating exhibitions have been shown in 750 cities. The museum has also conducted national poster, furniture and other design competitions.

It is impossible to review here all the educational work that has been done to advance industrial art in the United States, almost entirely without government help. Important were the early exhibitions of the American Federation of Arts; the "Art in Every Home" showings and the International Exhibitions of ceramics, glass, rugs, metal work, textiles and other articles. The Eastern Art Association, Pacific Arts Association,

Western Art Association, and Art Association of Indiana and the Art Alliance in New York each had its own program.

Undertakings such as the Machine-Age Exhibition, with models and photographs of buildings from the entire world; the exhibitions of the American Institute of Architects; lectures at arts and crafts societies and the local art centers, all helped to make modern more familiar. The 1933 Century of Progress Exposition in Chicago and the 1939 World's Fair in New York were entirely modern in architecture, thus bringing the functional style before millions of visitors. The Decorative Arts Exhibit at the Golden Gate Exhibition in 1939 brought out a style that was free from the eccentricities which had made modern unacceptable to American taste five and six years earlier.

Modernism in the Schools

A number of new schools with high standards were gradually established, while existing ones were modernized and teaching methods improved. The Textile School in New York, the School of Industrial Art in New York, and that affiliated with the Art Institute of Chicago, as well as the Cranbrook Academy of Art near Detroit, were founded. The Rhode Island School of Design was noted for designs of silk and cotton fabrics as early as 1912. The New York State College of Ceramics of Alfred University has been modern since it was established in 1900. It was founded by Charles Fergus Binns, a follower of Ruskin and Morris. From the beginning, Alfred approached the making of ceramics from the scientific engineering viewpoint, through study of the actual material and complete production of ware during a four-year course which offered a degree. Carnegie Institute of Technology and the University of Illinois now give the degree of B.A. in Industrial Art. There is also an increasing general tendency to engage instructors who are working artists.

Numerous other schools have courses directed toward the graduate's employment in industry. In recent years, practical art instruction has greatly increased in every state, but the emphasis on modern is stronger in the west and southwest. In the east, tradition continues to be an influence.

Second German-Austrian Migration

As the United States steadily moved toward a new freedom in design, the restrictions of the Nazi government in Germany were forcing artists to work according to dictation. From about 1932, those who saw what lay ahead began to migrate. After 1933, hundreds came. And, for the second time, modern designers from Middle Europe made their impression on the United States. Numerous teachers were among them now, with the result that American design has received more of a German-Viennese stamp.

Several years prior to the German revolution, Tommi Parzinger of Munich won a two-way steamer passage as a prize for a poster which advertised the S.S. Bremen. The visit to the United States made him decide to return and stay. Parzinger's sensitively designed furniture, textiles, silver, wallpapers and ceramics fit with complete harmony into the American interior. Jock Peters was already known as a designer of modern interiors in California in 1932. Professor Emmy Zweybrück teaches the love of art to children according to the methods originated by Cizek in Vienna. (See Austria.) Mitzi Otten, enamelist, also came from Vienna. From the discontinued Bauhaus in Dessau came Prof. Josef Albers, now at Black Mountain College, N. C.; Walter Gropius, at present on the faculty of Harvard University; the late L. Moholy-Nagy, who created the School of Design in Chicago; and the noted functionalist, Mies van der Rohe. Professor Ernst Lichtblau of Vienna is on the faculty of the Rhode Island School of Design.

These and others have brought increased efficiency and greater understanding of modernism to American schools where formerly the working artist, in personal contact with the problems of production and selling, was almost unknown.

Modern Shops but Period Homes

Although the pioneering period was over in the early thirties, modernism was seen mostly in the department stores, jewelry, perfume and dress shops. The new spaciousness, restful colors, gleaming metal and glass, had a definite merchandising value. Stewart's in New York City and Bullocks Wilshire, Los Angeles, were among the first large stores to be designed in the new style. The offices of brokers and advertising agencies, showrooms, restaurants, hotels and apartment house lobbies, furnished with a bright, new elegance, made the older types of decoration look drab. Automobile interiors were functional. Here and there, mostly in California, was a new residence with a glass brick front and broad windows. The new houses were admired because of the extra light the large windows provided, but were frowned upon because the rooms were low.

Most American homes were still furnished in Hepplewhite, Duncan Phyfe, Louis XIV and XV. The leading decorating magazines carried very little information about the modern style, beyond reporting the exhibitions in Paris. American exhibits, except those of the Metropolitan Museum, received scant notice. One editor did query in an article, "Where are our moderns? . . . Who in any conspicuous, significant way is translating the accomplished European idea of modern decoration into an American idiom?" Even in the thirties, one did not know.

In fairness to the magazines it must be said that not many readers had any interest in the new style. When one publication rashly decided, about 1932, to specialize in modern, the

change resulted in too many subscription cancellations and the loss of most of the advertising revenue. *Creative Design*, founded at about the same time, and a modern magazine from the start, was a stimulating trade publication. The appearance of *Creative Art* was another step forward. During the early forties *Interiors* entered the field, covering all types of furnishing, both home and commercial, although not specializing in modern.

Designers' Organizations

The designers lacked strong organizations to promote their interests. That they did not have them was due to inadequate financial support, and to the lack of official interest in their cause. Often they were not permitted to sign their work. When it was published, they rarely received credit in the caption, while the manufacturer, distributor, and photographer did. They had no good sales outlet, no magazine of their own, and no expert promotional assistance. They did the best they could by forming societies that gave them some strength.

The first organization of architects and designers was Audac (American Union of Decorative Artists and Craftsmen). The purpose of this group was to foster a co-operative professional spirit, to hold exhibitions, and to stimulate efforts in behalf of protective legislation. In 1930, Audac held a large exhibition of members' work, at Grand Central Palace, New York, and in 1931 at the Brooklyn Museum. An excellently printed Annual also was published, illustrating architecture, shop and residential interiors, textiles, packaging, posters, book covers, typography and photography. Audac ceased to exist during the years of financial depression.

Contempora, founded by Paul Lester Wiener about 1928, was an international organization, to which Bruno Paul and Lucian Bernard of Germany, Paul Poiret of Paris, Vally

Wieselthier of Vienna, and Rockwell Kent belonged. The purpose was to promote sales. Contempora had beautiful display rooms in New York and a distinguished committee of sponsors. Department store and manufacturers' executives as well as socially prominent people gave their support to the first exhibition in 1929, which filled two floors of the Art Center building. Consumers, however, were not prepared to accept the new style.

The Art in Trades Club, founded about 1910, began in 1925 to encourage modern industrial art. The club held a competition at that time and the prize-winning designs were to be put into actual production. To the amazement of the jury, not one artist whose work was entered had turned out a design based on an understanding of the style or of the technological problem of production.

Today, two designers' societies function on a national scale. One has successfully survived the war, and both have sound programs and capable leadership. The American Designers Institute was founded by John Vassos in Chicago in 1938, with purposes similar to those of Audac. To make the Institute nationally effective, a president is chosen from a different state each year, while a vice president heads each important section. Associate members may be architects, interior decorators, and independent craftsmen and designers. The Institute has, on a number of occasions, successfully fought to protect its members from exploitation.

In 1944, the Society of Industrial Designers was incorporated. Membership in this group is limited to "practicing industrial designers and members of industrial design departments in institutions of higher learning." This explains why there are but ninety members. Those who specialize in a single type of product, business partners and business owners of industrial design firms, handicraft designers, and engi-

neering designers concerned only with mechanical features are not eligible for membership.

Industrial Design

From about 1927 on, modern designers who "styled" a manufactured product, created containers or arranged show windows were important to industry. One of the first was Archipenko, the sculptor, who designed abstract figures for a Fifth Avenue department store. Virginia Hammill styled a large number of household articles. Luxury was the keynote in selling almost any product from automobiles to rayon. But when the depression forced the reduction of costly merchandising accessories, the designer was besought by manufacturers to help by improving the product itself. He was taken through department stores and factories or was shown competing merchandise, and was asked to analyze, change and beautify.

The first designers who were thus suddenly confronted with the problem of restyling carpet sweepers, plumbing and sewing machines came from every field of art except, strangely enough, the handicrafts. Very few of them had any engineering training. Being unacquainted with labor costs, production methods and the pride of the plant engineering department, they made some bad mistakes. But since about 1938, and especially since the recent war, American machine-made articles have been turned out in more practical and aesthetically satisfying forms than anywhere else in the world. Financially, too, the industrial designer's is the modern success story, for no other country consumes such quantities of articles made from a single model.

Norman Bel Geddes, Raymond Lowey, Henry Dreyfus, Walter D. Teague, Edward Wormley, and Donald Deskey, pioneers in the profession, gave it a happy start because of their extraordinary design ability and their executive gifts. With the patience of a scientist and the imagination of the

artist, they experimented endlessly, mastered the difficulties presented by processes, and so replaced ugliness with beauty as well as greater practicability. Other outstanding early designers were the late Walter von Nessen, Russell Wright, Egmont Arens and George Sakier. In the younger group are Thomas Lamb, Ben Nash and Harold Van Doren. Through the peculiar genius of the artist-engineer, a new kind of aesthetics has been brought into the life of the millions through such commonplace things as kitchen utensils, business machines, railroad cars, automobiles, ferryboats and their interiors, filling stations, perfume bottles, china, and electrical appliances. A multitude of new, logical uses have been found for steel, brass, copper, aluminum, cork and glass. The dictum of Louis Sullivan, "Form follows function," has magnificently proved itself in their work. So have the theories of the Bauhaus group, who had the vision to apply the principles of abstract art to machine production.

The Art in Progress exhibition held in 1934 at the Museum of Modern Art was a revelation of the extent to which the industrial designer had penetrated every branch of manufacture. Today, on a scale undreamed of even by Wright, Van de Velde and Loos, design for the machine age is based, as Walter D. Teague puts it, on "Efficiency in manufacture (adaptation to the production processes and materials); Efficiency in performance (functional excellence); efficiency in use (. . . a machine that is perfectly adapted to its use . . . is a thing of beauty)." The artist engineer not only designs for the machine. He makes the machine itself a work of functional art.

In return for the loss of so many handicrafts, the designer for mass production can use both imagination and inventive talent, a combination once required only in architecture. As science produces more new materials, the working field is constantly broadened while ingenuity is challenged. The possibilities for the use of plastics is an example. When first invented, plastics were substitute materials, whereas today they

have not only replaced and supplemented other products but have formed entirely new ones. They have made it possible for the designer to achieve miracles in functional design.

No American industry has taken advantage of the industrial designer with happier results than the glass industry. Inexpensive table glass is now made in functional forms that have a look of distinction. The domestic luxury glass is Steuben and its makers, Corning Glass Company, deserve high praise for their earnest efforts, begun years ago, to create a glass of classic beauty. Steuben designs are the work of famous American artists.

It is interesting to see how successful some famous early industrial designers had been in other, quite different professions. Norman Bel Geddes began to work for industry in 1927 while he was a noted stage designer, a success largely due to his engineering talent. Still earlier he had been an art director. The dynamic and immensely practical Walter D. Teague came from the advertising and printing fields. Henry Dreyfus, like Geddes, started out as a designer of stage settings and costumes. Raymond Lowey, who studied engineering in Paris, was an unusually successful advertising illustrator during the twenties. Working not in studios but in laboratories, surtwenties. Working not in studios but in laboratories, surrounded by staffs of architects, engineers and model makers, these men, and others whom limited space prevents mentioning here, meet the demands of technology, merchandising experts and producers. The younger generation is learning the profession by the apprenticeship system, as they never could otherwise, after first studying architecture, costume design, interior decoration and engineering.

Architects have engaged in industrial design to some extent, but building demands have limited their contribution.

Actually, architecture and industrial design flow naturally into each other. Nor is there a real line of demarkation between the industrial designer and the artist craftsman, although when the latter engages in work for mass production, it is chiefly for the furniture, metal and ceramics industries.

A member of the American pioneer group in industrial and interior design is Donald Deskey. He has created quantity production models, was an early experimenter with glass, metal and asbestos, and has often acted as industrial design consultant. In 1927 he made a candy-vending machine. A motor truck and oil burner were other early commissions. Deskey was one of the first designers to attack the problem of more efficient heating units and of utilizing wasted basement space. Some of his colorful and gleaming interiors are in Europe and South America. His most famous achievement at home is the Radio City Music Hall.

Russell Wright, who believes industrial design is essential in today's social scheme, first designed stage settings for a neighborhood theater and then, as a protege of Bel Geddes, planned and executed stage properties and furniture for the Theatre Guild. While working on a project for the Edison Company, he became interested in metal spinning and stamping processes, progressing from this to experimentations with aluminum as a substitute for the more limited pewter. One of Wright's happy contributions to modern living was his famous "stove-to-table" ware. His simple, graceful and original lamps, vases, sectional furniture and ceramics, all for mass production, have made this artist important. Years ago one of his ideas was an aluminum beer stein with cork handle; recently his uneven-edged, heavy bowls of Georgia clay in richly colored glazes have become another typically American product.

A gifted young designer was Walter von Nessen, whose untimely death cut short a promising career. During the financial depression of the thirties he was commissioned by the Chase Brass and Copper Company to design some of the

first functional home appliances manufactured in the United States. His electrical cooking units for the table are still models of efficiency and style, as are his chromium floor and table lamps.

The broad road for design talent of many varieties and degrees is the furniture industry. No country in the world produces such large quantities of factory-made furniture as the United States. Today, the greatest market is still for seventeenth and eighteenth century reproductions and adaptations, but the demand for designs ranges from "borax" to functional. In the early thirties, modern designers and architects made simple pieces, with an eye to economy of material and labor, but only a few manufacturers produced them, and in very small quantities. Kem Weber had a chair of laminated wood which could be knocked down for shipment. Wolfgang Hoffmann made a metal tubing chair with the front legs and the back forming one unit, and the rear legs joining the seat; these were fastened to the other unit at four points. Mies van der Rohe, Joseph Aronson and Nathan George Horwitt were among those who introduced interchangeable parts, used padding instead of upholstery, and preferred easily cleaned materials such as leather and mohair. Several types of metal chairs were made so that the frame could be produced in one department of the factory and the upholstery in another. Those chairs were to the thirties what the sensational functional products of Charles Eames are today.

An internationally known designer of functional furniture is the Finnish architect, Alvar Aalto (see Finland). Extremely comfortable, finely finished armchairs of laminated wood are his specialty. Bruno Mattson, of Sweden, who has made very pleasingly proportioned and comfortable chairs of plywood, has also found success in the United States. While on the subject of plywood, it is interesting to know that John Henry Belter, an American, tried to make furniture of it as early as 1850. He used rosewood and carved it.

Kem Weber and Jock Peters did a good deal to change the appearance of California homes and shops during the thirties. Both are fine craftsmen. Weber began as an apprentice in a German cabinet shop and later worked in American lumber camps and factories where he learned still more about woods. His laminated wood furniture, designed in 1931 and known as Bentlock, has already been mentioned. Peters, an architect, was assistant to Peter Behrens, and later director of the School of Allied Arts at Altoona, near Hamburg. His functional interiors are softened with warm colors and rich textures; the luxury, dignity and efficiency of his planning are altogether American. Peters interiors for Bullock's Wilshire store were among the most beautiful of the 1930's. To obtain desired effects, he conducted his own workshops with nearly a hundred skilled men. He also was one of the first designers of modern motion picture settings in Hollywood.

Robert Heller was especially noted for his beautiful shop interiors when modern was still viewed skeptically. Edward Wormley's name has long been one of the foremost in the field of furniture design. Among American women designers, Eleanor Le Maire is one of the outstanding figures. Her many apartments and shops reveal a deep study of abstract and Oriental art. Through an unusual understanding of balance and the psychology of color, she has contributed a great deal toward achieving serenity, together with warmth, into the functional interior. Among her notable successes was the more recent modern furnishing of Bullock's Wilshire store.

T. H. Robsjohn-Gibbings has brought to the United States the simplicity and color of modern, combined with the dignity that is characteristic of English houses. His designs are functional without severity, and the total effect is one of charming comfort. Gibbings is as celebrated for his book, Goodbye, Mr.

Chippendale, as he is for his interpretations of the modern style.

Even before the Second World War, young American designers whose talent had been developed by high standard training in the improved art schools were coming to the fore. Since the war, their number has increased so that it is impossible to review their work here.

The manufacture of textiles is vastly important in the United States today. Thanks to the work of the museums and individual leaders, the two problems which were such severe handicaps to good textile design have cleared up. The American manufacturer recognizes his responsibility toward native design talent; and schools have improved so much that a well-taught younger generation makes the employment of Europeans unnecessary. Among the notable designers is Ruth Reeves, who was a modernist as early as the twenties. Her gift for creating striking and beautiful effects was further stimulated by a visit to Guatemala, where she made a study of native design. It is impossible within these pages to describe even a part of the excellent work being done by a number of outstanding artists, but the improvement that everyone can see is the best evidence that the United States can now compete on equal terms with Europe. On a very small scale, the art of hand weaving is also enriching the modern American interior. A few decorators use only hand-woven textiles, thus encouraging the revival of the craft. One of the most noted weavers in the United States is Dorothy Liebes of San Francisco whose brilliant-hued, dramatically textured fabrics are wholly American, although she draws upon the world for inspiration. She also makes designs for machine weaving.

Technically, American textile manufacture has advanced more than in Europe, especially in the use of combinations of different types of yarn. In cotton, this country has naturally far outstripped all others, as such an enormous amount is raised in the United States. Cotton seems to be the present answer to the problem of supplying low income families with fabrics as good as other groups can have, and some mills direct their production wholly toward that market.

Each year the number of good American designers in every field increases. In every part of the country, they make their imprint on costly and inexpensive furniture, rugs, fabrics, pottery, glass and china. Only in the arts and crafts, the small demand limits production. Herein, too, there is some improvement as the well-to-do consumer begins to realize the cultural value of an original work of applied art.

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